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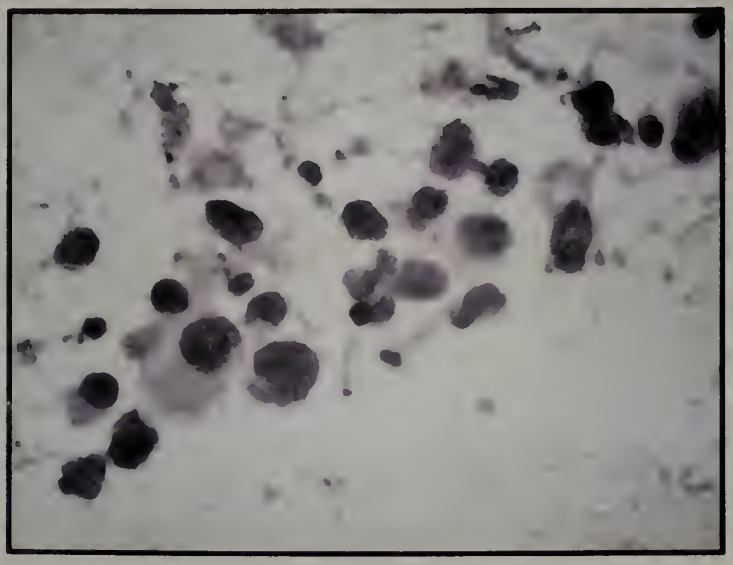
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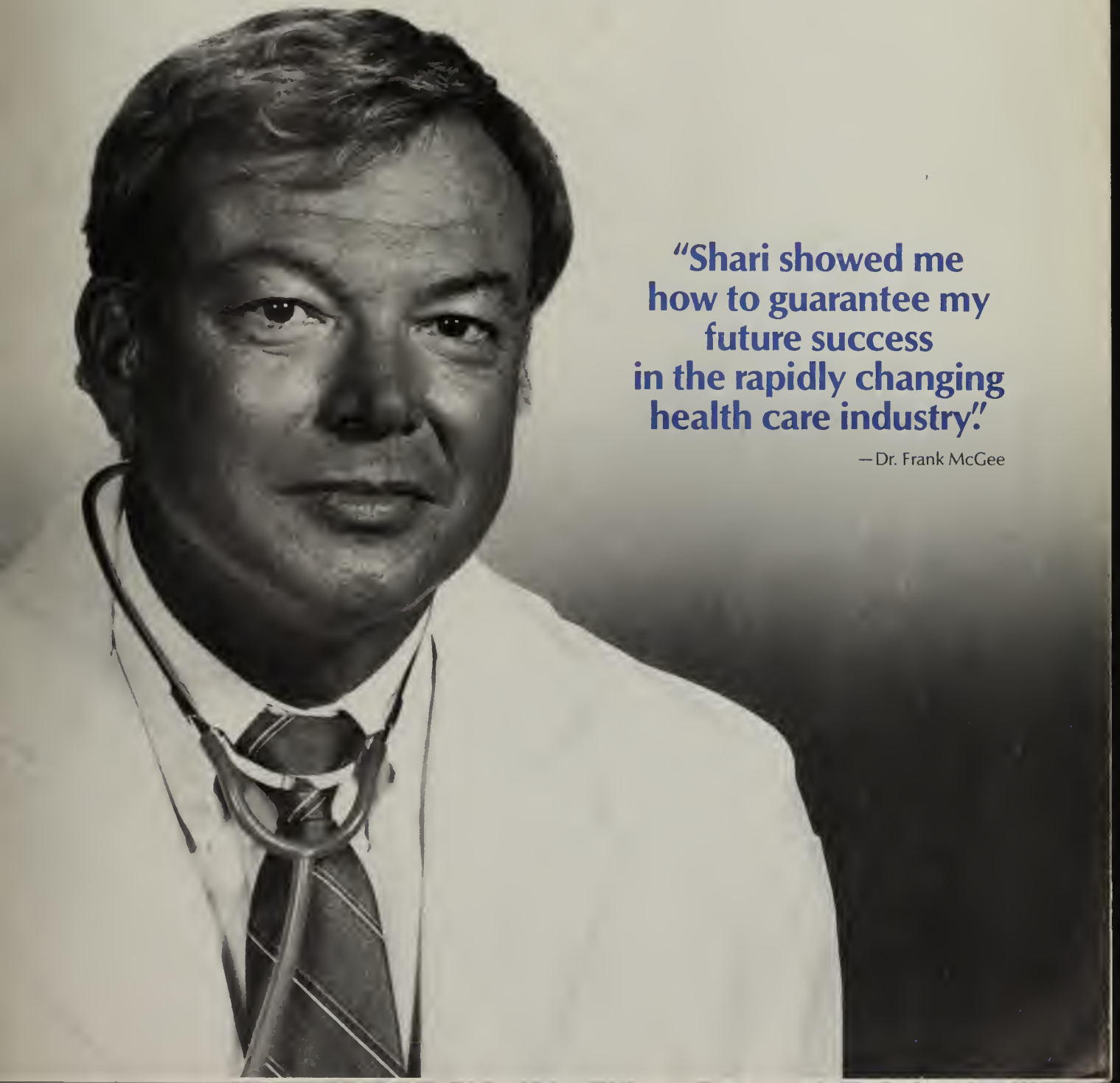
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SEPTEMBER 1985, Vol. 72, No. 9

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COVER

This month's cover of *The Journal* demonstrates three aspects of thin needle aspiration: chest x-ray, instruments used, and cancer cells. The photographs were submitted by the authors of the lead article, "Thin Needle Aspiration Biopsy as Diagnostic Tool: Community Hospital Experience," Jorge C. Arroyo, M.D. and Frank M. Taylor III, M.D.

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PRESIDENT'S PAGE

Tort reform through one body/one will



The time has come to visit with your state representatives and senators. They are at home now, waiting and preparing for the next session of the legislature. This is your opportunity to find out what their feelings are in relation to the much needed liability reform.

As you all know, some advances were made in the last session, the first time in ten years. However, it was not nearly enough to ameliorate the problem permanently.

Your Council on Legislation is analyzing the issues very carefully and giving a lot of time and work to the political realities that we will have to face in the next session.

By now your local medical societies have received a letter asking the membership to meet with your legislators to ask them specific questions about the issues at hand. Their answers will help to give us a sense of direction for the future, help clarify the postures and positions we will have to adopt, and let us know the possibility of making further advances towards the resolution of the problems. The decision on which route to take will be made when all the data gained from the grassroots movement and the work of the FMA Committee on Legislation is analyzed. We expect to do so at the Board meeting in October.

Also, remember that the idea of another constitutional amendment, consisting of one issue, placed on the ballot is still being considered as a way to bring the liability problems out of our courts. The legislators' opinions on this subject should be evaluated as well.

In order to win this fight we have to be well organized and work as one body with only one will. Coalitions are being formed with other organizations that are as concerned with the liability crisis as we are. Preliminary conversations have been encouraging; old rivalries have been put aside so that a solid front can be made. All are going to work together during the coming months to create a positive, strong body aiming towards a common goal.

To achieve this goal we have to close ranks. We must realize that every physician must become a politician, as well as a public relations practitioner for the good of the profession as a whole. The Association's leadership, after weighing all the facts and evaluating all the possibilities, can give the necessary orientation and direction to our drive, but only after every physician gets rid of apathy, disinterest and critical cynicism towards our actions and becomes really committed to the work at hand, will we be successful.

The men of this world are divided into the ones that love and build and the ones who hate and destroy. We have to lay pettiness and personal motives aside. We have to possess enough strength and character to realize that bickering among ourselves is not constructive. We have to act together to solve the common serious problem that is facing us and with all our energy and determination fight for and solve it in the most logical, political and final form.

This does not mean that we completely ignore all the other issues at hand. The changes that are occurring in the delivery of medicine, the interference from other parties with our ability to provide the people of Florida with the best medical care available, and the inroads made by the Federal Government through Medicare and Medicaid to control our profession — these issues all must be kept on the front burner at all times, but in separate

compartments, separate burners if you will. They have different meanings to different people, and the majority of them must be worked out among ourselves. Some problems are national in scope; we must work with other states within the AMA policies before we can attempt a united form of action.

Liability is a common problem, not just to our profession, but to school boards, cities, counties, businesses and to any organization that has something to do with the protection of the people's right to have access to good services or medical care without fear of legal action against them.

Liability at this moment is the most serious threat not just to the medical profession, but to the people of Florida as well, and should be our primary concern. Each one of us should feel that the responsibility is on his shoulders. To change this threat we all have to work together with one body and one will.



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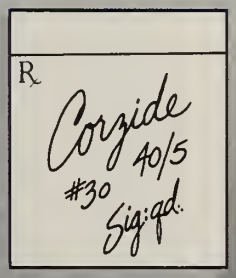
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*Joint National Committee on Detection, Evaluation and Treatment of High Blood Pressure. The 1984 report of the Joint National Committee on Detection, Evaluation and Treatment of High Blood Pressure. Arch Intern Med 144:1045-1057, 1984.

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CONTRAINDICATIONS: Nadolol — Bronchial asthma, sinus bradycardia and greater than first degree conduction block, cardiogenic shock, and overt cardiac failure (see WARNINGS). **Bendroflumethiazide** — Anuria, and in those with previous hypersensitivity to bendroflumethiazide or other sulfonamide-derived drugs.

WARNINGS: Nadolol — Cardiac Failure — Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta-blockade may precipitate more severe failure. Although beta-blockers should be avoided in overt congestive heart failure, if necessary, they can be used with caution in patients with a history of failure who are well compensated, usually with digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle. IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta-blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, digitalize and/or give diuretics, and closely observe response, or discontinue nadolol (gradually, if possible).

Exacerbation of Ischemic Heart Disease Following Abrupt Withdrawal — Hypersensitivity to catecholamines has been observed in patients withdrawn from beta-blocker therapy; exacerbation of angina and, in some cases, myocardial infarction have occurred after *abrupt* discontinuation of such therapy. When discontinuing chronic use of nadolol, particularly in patients with ischemic heart disease, gradually reduce dosage over a 1- to 2-week period and carefully monitor the patient. Reinstitute nadolol promptly (at least temporarily) and take other measures appropriate for management of unstable angina if angina markedly worsens or acute coronary insufficiency develops. Warn patients not to interrupt or discontinue therapy without physician's advice. Because coronary artery disease is common and may be unrecognized, it may be prudent not to discontinue nadolol therapy abruptly even in patients treated only for hypertension.

Nonallergic Bronchospasm (e.g., chronic bronchitis, emphysema) — PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD IN GENERAL NOT RECEIVE BETA-BLOCKERS. Administer nadolol with caution since it may block bronchodilation produced by endogenous or exogenous catecholamine stimulation of $beta_2$ receptors. **Major Surgary** — Because beta blockade impairs the ability of the heart to respond to reflex stimuli and may increase the risks of general anesthesia and surgical procedures, resulting in protracted hypotension or low cardiac output, it has generally been suggested that such therapy should be withdrawn several days prior to surgery. Recognition of the increased sensitivity to catecholamines of patients recently withdrawn from beta-blocker therapy, however, has made this recommendation controversial. If possible, withdraw beta-blockers well before surgery takes place. In emergency surgery, inform the anesthesiologist that the patient is on beta-blocker therapy. Use of beta-receptor agonists such as isoproterenol, dopamine, dobutamine, or levarterenol can reverse the effects of nadolol. Difficulty in restarting and maintaining the heart beat has also been reported with beta-adrenergic receptor blocking agents. **Diabetes and Hypoglycemia** — Beta-adrenergic blockade may prevent the appearance of premonitory signs and symptoms (e.g., tachycardia and blood pressure changes) of acute hypoglycemia. This is especially important with labile diabetics. Beta-blockade also reduces release of insulin in response to hyperglycemia; therefore, it may be necessary to adjust dose of antidiabetic drugs. **Thyrotoxicosis** — Beta-adrenergic blockade may mask certain clinical signs (e.g., tachycardia) of hyperthyroidism. To avoid abrupt withdrawal of beta-adrenergic blockade which might precipitate a thyroid storm, carefully manage patients suspected of developing thyrotoxicosis.

Bendroflumethiazide — Use with caution in severe renal disease. In patients with renal disease, azotemia may be precipitated. With impaired renal function, effects of the drug may be cumulative. Use with caution in impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate hepatic coma. Sensitivity reactions may occur in patients with a history of allergy or bronchial asthma. Possibility of exacerbation or activation of systemic lupus erythematosus has been reported.

PRECAUTIONS: General — Nadolol — Use with caution in patients with impaired hepatic or renal function (see DOSAGE AND ADMINISTRATION).

Bendroflumethiazide — At appropriate intervals, perform serum electrolytes determination to detect possible electrolyte imbalance warning signs of which are dryness of mouth, thirst, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular fatigue, hypotension, oliguria, tachycardia, and G.I. disturbances such as nausea and vomiting. Observe patients for clinical signs of fluid or electrolyte imbalance; namely, hyponatremia, hypochloremic alkalosis, hypokalemia. Serum and urine electrolyte determinations are particularly important when the patient is vomiting excessively or receiving parenteral fluids. Drugs such as digitalis may influence serum electrolytes. Hypokalemia may develop, especially with brisk diuresis, in presence of severe cirrhosis. Interference with adequate oral electrolyte intake will also contribute to hypokalemia. Response of the heart to toxic effects of digitalis can be exaggerated with hypokalemia. Use potassium supplements such as high potassium foods to avoid or treat hypokalemia. Any chloride deficit is generally mild and usually does not require specific therapy except under extraordinary circumstances (as in liver or renal disease). Dilutional hyponatremia may occur in edematous patients in hot weather; appropriate therapy is water restriction rather than salt administration except in rare instances when the hyponatremia is life threatening. In actual salt depletion, appropriate replacement is the therapy of choice.

Hyperuricemia may occur or frank gout may be precipitated in certain thiazide-treated patients. Latent diabetes mellitus may become manifest during thiazide therapy. Antihypertensive effects of bendroflumethiazide may be enhanced in the postsympathectomy patient.

Careful reappraisal of therapy and consideration given to withholding or stopping diuretic therapy is necessary if rising nonprotein nitrogen or BUN (indicative of progressive renal impairment) occurs. Thiazides may decrease serum PBI levels without signs of thyroid disturbance. Thiazides decrease calcium excretion. Pathologic changes in parathyroid gland with hypercalcemia and hypophosphatemia have been occasionally observed with prolonged therapy. Common complications of hyperparathyroidism have not been seen.

Information for Patients — Warn patients, especially those with evidence of coronary artery insufficiency, against interruption or discontinuation of nadolol without physician's advice. Although cardiac failure rarely occurs in properly selected patients, advise patients being treated with beta-adrenergic blocking agents to consult physician at the first sign or symptom of impending failure. Advise patients of proper course if dose inadvertently missed.

Laboratory Tests — Regularly monitor serum and urine electrolyte levels (see WARNINGS, *Bendroflumethiazide*, and PRECAUTIONS, *General, Bendroflumethiazide*).

Drug Interactions — Nadolol — When administered concurrently the following drugs may interact with beta-adrenergic blocking agents. **Anesthetics, general** — exaggeration of anesthetic-induced hypotension (see WARNINGS, *Nadolol, Major Surgery*). **Antidiabetic drugs (oral agents and insulin)** — hypoglycemia or hyperglycemia, adjust antidiabetic drug dosage accordingly (see WARNINGS, *Nadolol, Diabetes and Hypoglycemia*). **Catecholamine-depleting drugs (e.g., reserpine)** — additive effect, monitor closely for evidence of hypotension and/or excessive bradycardia.

Bendroflumethiazide — When administered concurrently the following drugs may interact with thiazide diuretics. **Alcohol, barbiturates, or narcotics** — may potentiate orthostatic hypotension. **Antidiabetic drugs (oral agents and insulin)** — thiazide-induced hyperglycemia may require adjustment of antidiabetic drug dosage. **Other antihypertensive drugs** — additive or potentiated effect. **Corticosteroids, ACTH** — intensified electrolyte depletion, particularly hypokalemia. **Ganglionic or peripheral adrenergic blocking drugs** — potentiated effect. **Preanesthetic and anesthetic agents** — effects may be potentiated, adjust dosage accordingly. **Pressor amines (e.g., norepinephrine)** — possible decrease response but not sufficient to preclude their use. **Skeletal muscle relaxants, nondepolarizing (e.g., tubocurarine)** — possible increased response.

Drug/Laboratory Test Interactions — Discontinue thiazides before tests for parathyroid function (see PRECAUTIONS, *General, Bendroflumethiazide*).

Carcinogenesis, Mutagenesis, Impairment of Fertility — Nadolol — In 1 to 2 years oral toxicologic studies in mice, rats, and dogs, nadolol did not produce significant toxic effects. In 2-year oral carcinogenic studies in rats and mice, nadolol did not produce neoplastic, preneoplastic, or nonneoplastic pathologic lesions. **Bendroflumethiazide** — Long-term studies in animals have not been performed.

Pregnancy — Teratogenic Effects — Nadolol — Category C. In animal reproduction studies with nadolol, evidence of embryo- and fetotoxicity was found in rabbits, but not in rats or hamsters, at doses 5 to 10 times greater (on a mg/kg basis) than the maximum indicated human dose, no teratogenic potential was seen in any of these species. There are no well-controlled studies in pregnant women, therefore, use nadolol in pregnant women only if potential benefit justifies potential risk to the fetus. **Bendroflumethiazide** — Category C. Animal reproduction studies have not been conducted. This drug's effect on the fetus when administered to a pregnant woman or its effect on reproductive capacity is not known. Bendroflumethiazide should be given to a pregnant woman only if clearly needed. **Nonteratogenic Effects** — Since thiazides cross the placental barrier and appear in cord blood, weigh anticipated benefit of the drug in pregnant women against possible hazards to the fetus; these hazards include fetal or neonatal jaundice, thrombocytopenia, and possibly other reactions which have occurred in adults.

Nursing Mothers — Both nadolol and bendroflumethiazide are excreted in human milk. Because of the potential for serious adverse reactions in nursing infants either discontinue nursing or discontinue therapy, taking into account the importance of CORZIDE (Nadolol-Bendroflumethiazide Tablets) to the mother.

Pediatric Use — Safety and effectiveness in children have not been established.

ADVERSE REACTIONS: Nadolol — Most adverse effects have been mild and transient and have rarely required nadolol withdrawal. **Cardiovascular** — Bradycardia with heart rates of less than 60 beats per minute occurs commonly, and heart rates below 40 beats per minute and/or symptomatic bradycardia were seen in about 2 of 100 patients. Symptoms of peripheral vascular insufficiency, usually of the Raynaud type, have occurred in approximately 2 of 100 patients. Cardiac failure, hypotension, and rhythm/conduction disturbances have each occurred in about 1 of 100 patients. Single instances of first degree and third degree heart block have been reported. Intensification of AV block is a known effect of beta-blockers (see also CONTRAINDICATIONS, WARNINGS, and PRECAUTIONS). **Central Nervous System** — Dizziness or fatigue reported in approximately 2 of 100 patients; paresthesias, sedation, and change in behavior reported in approximately 6 of 1000 patients. **Respiratory** — Bronchospasm reported in approximately 1 of 1000 patients (see CONTRAINDICATIONS and WARNINGS). **Gastrointestinal** — Nausea, diarrhea, abdominal discomfort, constipation, vomiting, indigestion, anorexia, bloating, and flatulence each reported in 1 to 5 of 1000 patients. **Miscellaneous** — Each of the following reported in 1 to 5 of 1000 patients: rash; pruritus; headache; dry mouth, eyes, or skin; impotence or decreased libido, facial swelling, weight gain; slurred speech; cough; nasal stuffiness; sweating; tinnitus; blurred vision. Although relationship to drug usage is not clear, sleep disturbances have been reported. The oculomucocutaneous syndrome associated with practolol has not been reported with nadolol. The following adverse reactions may also occur: **Central Nervous System** — reversible mental depression progressing to catatonia; visual disturbances; hallucinations, an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability with slightly clouded sensorium, decreased performance on neuropsychometrics. **Gastrointestinal** — mesenteric arterial thrombosis; ischemic colitis. **Hematologic** — agranulocytosis; thrombocytopenic or nonthrombocytopenic purpura. **Allergic** — fever combined with aching and sore throat; laryngospasm; respiratory distress. **Miscellaneous** — reversible alopecia; Peyronie's disease; erythematous rash; arterial insufficiency.

Bendroflumethiazide — Gastrointestinal System — anorexia, gastric irritation, nausea, vomiting, cramping, diarrhea, constipation, jaundice (intrahepatic cholestatic jaundice), pancreatitis. **Central Nervous System** — dizziness, vertigo, paresthesia, headache, xanthopsia. **Hematologic** — leukopenia, agranulocytosis, thrombocytopenia, aplastic anemia. **Dermatologic-Hypersensitivity** — purpura, photosensitivity, rash, urticaria, necrotizing angiitis (vasculitis, cutaneous vasculitis). **Cardiovascular** — orthostatic hypotension may occur. **Other** — hyperglycemia, glycosuria, occasional metabolic acidosis in diabetics, hyperuricemia, allergic glomerulonephritis, muscle spasm, weakness, restlessness. Whenever adverse reactions are moderate or severe, thiazide dosage should be reduced or therapy withdrawn.

OVERDOSAGE: Nadolol may cause excessive bradycardia, cardiac failure, hypotension, or bronchospasm if overdosed. Overdosage of thiazides may cause lethargy, which may progress to coma within a few hours, with minimal depression of respiration and cardiovascular function and without evidence of serum electrolyte changes or dehydration. Gastrointestinal irritation and hypermotility may occur. Transitory increase in BUN and serum electrolyte changes may occur, especially in patients with renal impairment.

Treatment — Nadolol can be removed from the general circulation by hemodialysis. In determining duration of corrective therapy, take note of the long duration of the effect of nadolol. In addition to gastric lavage, employ the following measures, as appropriate. **Excessive Bradycardia** — Administer atropine (0.25 to 1.0 mg). If there is no response to vagal blockade, administer isoproterenol cautiously. **Cardiac Failure** — Administer a digitalis glycoside and diuretic. It has been reported that glucagon may also be useful in this situation. **Hypotension** — Administer vasopressors, e.g., epinephrine or levarterenol. (There is evidence that epinephrine may be the drug of choice.) **Bronchospasm** — Administer a $beta_2$-stimulating agent and/or a theophylline derivative. **Stupor or Coma** — Supportive therapy as warranted. **Gastrointestinal Effects** — Symptomatic treatment as needed. **BUN and/or Serum Electrolyte Abnormalities** — Institute supportive measures as required to maintain hydration, electrolyte balance, respiration, and cardiovascular and renal function.

DOSAGE AND ADMINISTRATION: DOSAGE MUST BE INDIVIDUALIZED. Patients with renal failure require adjustment in dosing interval; see package insert for dosage in these patients.

Consult package insert before prescribing CORZIDE (Nadolol-Bendroflumethiazide Tablets).

HOW SUPPLIED: Available as scored tablets containing 40 mg nadolol combined with 5 mg bendroflumethiazide and 80 mg nadolol combined with 5 mg bendroflumethiazide in bottles of 100.

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Medical unions: the potential and the pitfalls

The idea of trade unions among physicians is starting to stir new interest as the endless restructuring of the medical system continues unabated. More and more physicians are getting restless over developments that are slowly stripping away their independence and, in the process, displacing them as the guardians of medicine. The government has now become a very influential force in medicine; in addition, corporations, insurance companies, hospitals and an assortment of third parties have been continually amassing power and are now unabashedly wielding a big stick over the heads of physicians. While there is no collective panic yet, there is an increasing feeling of helplessness pervading the medical ranks which is impelling physicians to re-assert their voices. Trade unions, because of their promise of collective clout, hold a majestic appeal to many physicians.

Trade unionization in medicine never caught fire in the past simply because physicians were able to practice their profession unencumbered by government meddling or any third-party interference. But that picture has changed dramatically. This is a painful period for medicine, and unions thrive best in times of distress. Amidst the new era of competition spawned by the government, physicians are increasingly faced with the need to devise new practice strategies and to deal with an enlarging umbrella of HMOs, PPOs, IPAs, and what have you to maintain their base of patients and their incomes and, at the same time, preserve the good quality of medical care. Dealing with numerous third parties is a new rule of the game; to be able to bargain from strength is what physicians want.

Collective bargaining through trade unions has worked well for blue-collar workers, teachers, actors, pilots, and baseball players; there is no reason why it should not work equally well for physicians. At least that is the view of those who feel that the time for medical unions has come, including Dr. Sanford A. Marcus, who founded the Union of American Physicians and Dentists in 1972. Just to cite some obvious benefits, American trade unions have been able to bargain for better wages, better working conditions, better fringe benefits, and better retirement pay. The experience of Dr. Marcus's own union and of the medical housestaff unions in New York City, Chicago and Los Angeles, while limited, showed that collective bargaining for physicians could work. While it is true that the housestaff unions employed strikes to accomplish their goals, provisions were made to ensure that medical care was not denied to those with emergent or urgent medical needs. The same provisions can be made for future medical unions without the necessity of physicians having to strike.

The emergence of various health plans by a number of companies and corporations which offer contracts to physicians illustrates the complexities that the physician, as an individual practitioner, has to confront. Most physicians do not have the experience in dealing with third parties; even with guidelines offered by medical societies, physicians find it difficult to swim through the maze of intricacies, legal language, and fine print contained in a number of these contracts. These contracts contain provisions not only for physicians' fees, but for credentialing, board membership, peer and utilization review, pre-admission certification criteria, and disciplining as well. In effect, they can determine how physicians should practice medicine, which is a crucial issue for the profession. Individually, there is little that physicians can do to modify these contracts; collectively, through trade unions, they can

do a lot to obtain the benefits and other provisions of membership that they want.

While it is obvious that the benefits from a medical trade union are economic, there are other areas as well where they can help physicians. One of these is the lingering professional liability problem with the ever escalating malpractice premiums; medical unions, in concert with other medical organizations and other parties, can wield enormous influence in Congress and state legislatures to solve this problem once and for all. Another area, again in concert with established medical organizations, is in putting up a united front against the increasing encroachment of third parties in the practice of medicine, a development which has been slowly eroding the private practice of medicine. Other issues will emerge in the future where medical trade unions can be equally useful.

But why would physicians need trade unions when they have the AMA, the various state and county medical societies, and numerous other medical organizations that are already representing their interests? The answer lies in the anti-trust laws of this country. None of these organizations is permitted to engage in collective bargaining, or in any activity that will affect the reimbursement fees or policies of third-party carrieres. Court rulings against the Michigan State Medical Society and the Maricopa County Medical Society make this quite clear. Trade unions, on the other hand, are conferred immunity from the anti-trust laws. Dr. Sanford Marcus, the guru of the American medical union movement, made it clear, in a far-reaching article in the *New England Journal of Medicine*, that trade unions representing even independent practitioners can legitimately avail themselves of the same rights accorded unions established for salaried workers, positing the existence of an employer-employee relationship between physicians and other parties including Medicare, Medicaid, hospitals, HMOs and PPOs in their various interactions, and of a degree of control that one party exercises over another.

Appealing as the idea is of trade unions in medicine, there are many skeptics who do not think that unionization is the panacea that other physicians believe it is. History is on their side.

Trade unions, for one thing, are new, untested, and antithetical to the traditional roots and ideals of the medical profession. Notwithstanding current developments, there are still many physicians who strongly feel that medicine is not a business that should be tainted by unions. The service provided by physicians to their patients is unique; it is not similar to playing baseball, acting in a soap opera, unloading goods from the docks, or flying an airplane. The dignity of the medical profession must be maintained, unless physicians want to be treated like common workers or overpaid athletes who want to stuff their pockets even more. Trade unions, at least in this country, conjure up images of brazen and naked power, bullying tactics, strikes, rapacity, and corruption. How can we equate these images with medicine and its practitioners? Even with assurances that medical trade unions are not going to employ strikes and other dirty tactics, the public will perceive unionism as nothing more than a ploy for physicians to preserve their economic interests. A potential public backlash against the medical profession conceivably can do irreparable damage to physicians.

Furthermore, many physicians feel that those who are advocating medical trade unions are overreacting, and that their anxiety over their loss of control over their profession has no basis in fact. While it is true that the entrance of the government and other entities in medicine has made things different, physicians can still adjust to these realities without having to resort to unions. Economic realities may be harsher than they have been, but most physicians are still making a good living. The leverage through collective bargaining probably will not affect the policies of the government and other fiscal intermediaries which are bent on containing medical costs by every means. With or without medical unions, all indications point to diminishing incomes for all physicians. Comparatively, however, physicians' incomes are still among the highest for various professional groups.

One argument being bandied about in favor of unions is that physicians are steadily losing control of their profession and finding it increasingly difficult to deal with the government, corporations, hospitals, and other third parties. Unions may not necessarily mean that they will regain control. Physicians have little or no experience in union activities; conceivably, they will turn to labor professionals to run their unions but that may not sit well with those who know the labor movement in this country. The history of American labor leadership is not exactly replete with examples that will quell the fears of physicians who want to put their trust in these labor leaders. The scenario would be that of old emperors wearing new robes.

Finally, trade unions as an instrument of collective bargaining for independent medical practitioners, as opposed to salaried physicians under employ by an organization, still pose a problem in the thorny area of anti-trust activities. The courts have ruled clearly that any activity by a group of physicians that has the effect of influencing fee structures is in restraint of trade and therefore a violation of the anti-trust statutes. Proving that physicians who have individual contracts with such organizations as HMOs and PPOs are employees may not be as easy as Dr. Marcus would lead us to believe. The Michigan State Medical Society, stung

by an FTC ruling that its act as the "exclusive bargaining agent" for its physician members in negotiating for fees or reimbursement levels constituted restraint of trade, issued a warning in January this year to all its members about the dangers in joining a medical union. The society was referring mainly to potential violations of the anti-trust laws.

The search for solutions to the problems that plague the medical profession, whether real or imaginary, simple or complex, will be a difficult job for physicians. Trade unions are just one of many alternatives. They have proven their clout in this country. But there are also pitfalls. Harnessing their strengths while avoiding the pitfalls will be a challenge to those who feel that trade unionism in medicine is an idea whose time has come.

R. G. Lacsamana, M.D.
Editor

A contract broken

The Florida Legislature passed a law in the waning days of the 1985 session which will exempt physicians of the Mayo Clinic from having to obtain a Florida medical license when they come to work in the Mayo facility being built in Jacksonville. The Mayo Clinic, as well as several other interests, had lobbied for this. The arguments seemed to be that these were eminent physicians employed by a prestigious medical center and their competency should not be open to question. It appeared to be a bother to have to restudy to pass the state boards or its equivalent. The pervasive feeling was that these academic physicians should make better use of their time than having to take exams to qualify for a Florida license. The other reason espoused, either implied or spoken, was that the Mayo Clinic in Jacksonville would provide millions of dollars for the community and nothing should be allowed to interfere with this.

Parts of both reasons are indisputable at first glance. Certainly, the Mayo Clinic is prestigious and renowned across the land. I do not know the magnitude of the Mayo Clinic in Jacksonville, but I think it would be safe to say that it will probably be worth millions for the Jacksonville economy. The Legislature apparently felt both of the reasons were sufficient to overturn the tradition of physician licensure which has existed in this state since the early 1900's. There have been individual exceptions over the years with visiting professors in medical schools, but nothing to compare with the mass exemption connected with the Mayo Clinic.

In passing the law the Legislature has ignored the history of licensure, the reasons for the evolution of professional regulation, and more important, has broken a contract with the people of Florida. To be sure, the majority of the citizens of this state have no idea a contract has been broken and if they did, would probably not raise a collective voice to speak out against it. They would equate it with a blow to organized medicine and may even applaud it, as apparently have many citizens of the Jacksonville area. However, a contract with them has been broken as surely as night follows day, and if they would study the issue it would send a shiver through their souls. Unfortunately, the physicians of this state are just starting to emerge from forty years of bad public relations and antagonism with many groups. For these reasons, we are probably the only ones who are going to speak out about this.

Let us examine the issues. The contract which has been broken is not only between the current citizens of Florida and the Legislature. It is between the government and the citizens of this country which has its roots in the establishment of a democratic system of political behavior. When people of the past began to consider ways to govern themselves, several concepts emerged from the political thought and philosophy which existed in the sixteenth and seventeenth centuries. What evolved was that citizens had to give up unrestricted freedom and live in a society which imposed restraints on individual behavior in return for the good of the whole. Also, the government accepted as its responsibility, and the people expected it, that the power of the central authority would be used to protect and to promote the welfare of its citizens. Out of this thinking would grow the regulatory process of any government. The regulatory process existed not only to regulate conditions for the good of the whole, but also for the protection of the individual.

From these thoughts and ideas would come the American Declaration of Independence and the Constitution of the United States. Both documents attempt to delineate the responsibilities of the individual and the government to each other. It is a tradition of American and English law that measures of public health are always within the authority of government. Here in the United States, this responsibility has largely been left to the states, but the federal government has stepped in when the need arose to use this regulatory power. In the early 1900's, amid a great public clamor for reform, the federal government moved with dispatch to regulate the food and drug industry for the good of the citizens. At that time, the Chicago stock yards shipped beef to the tables of America and were controlled by a few great packing companies, some of them unscrupulous. Tainted meat, contaminated with either rat droppings, dangerous chemicals, or

bacteria were being peddled to America, and the federal government, under the prodding of President Theodore Roosevelt, moved to stop this abuse of the health of Americans. In 1906, The Meat Inspection Act was passed which required that federal officials inspect all packing houses engaged in the interstate and foreign commerce and enforce sanitary regulations. The Pure Food and Drug Act also became law in that year which set standards for the production of food and manufactured drugs. Thus, in the early 1900's, the federal government laid standards for protection of the health and welfare of the citizens which have continued to this day.

The regulations of physicians at the state level were haphazard and lacking in criteria for both education and standards of competency in the early 1900's. Physicians were, in many cases, poorly trained in inadequate so-called medical schools or apprenticed to the practice of medicine with their individual quality obviously differing greatly. The medical profession led the struggle to establish educational standards and licensure requirements to insure the public safety. In 1910, the famous Flexner Report was issued which was a scathing indictment of the medical schools of the United States and Canada. As a result of this study, many medical schools closed and those which survived improved their curriculums. State licensing boards followed suit as standards for the issuance of a license to practice medicine were upgraded in the individual states. The action of the Florida Legislature broke that tradition. By granting special exception to the Mayo Clinic, the Legislature has abrogated its responsibility to the citizens of this state.

The argument that physicians at the Mayo Clinic are eminent and world renowned is inarguable. However, an entity, whether or not it is a medical clinic or an exalted office such as the Presidency of the United States, confers no special mantle of morality or high standards of conduct. Our system of laws recognizes this and each person is held accountable for his or her actions based on individual performances and not on a position held. This fact was recognized by the political thinkers of the past and checks and counter-balances were included in our system of government so a person in a position of importance would not impose his influence unduly. We have only to look to the Watergate episode to see that the office of the Presidency of the United States confers neither virtuous actions nor moral behavior. No, while the physicians of Mayo work in a clinic that is world-famous, the signing of a work agreement with that institution does not confer competency, righteous actions or moral conduct.

If economic aspects were overriding factors in the approval of license exception, then this is even more ominous. To break a contract between governed and government is sad in itself, but to be credited to sheer economics is frightening. I cannot cite specifics, but many say that interests backing the Mayo Clinic are heavily involved in legislative campaigns and other elections. While campaign contributions are a recognized part of our political process, this should weigh heavily on the conscience of those in which this took priority over an implied obligation which they accepted when they went to Tallahassee.

No, after all the reasons for the exemption of the Mayo physicians are examined in the light of the relations of the state and the citizens, it becomes even more apparent that the Florida Legislature, in this instance, failed to live up to its responsibility to protect the people of Florida through its regulatory powers. The reasons given for the dereliction of duty are flimsy and devoid of rational or worthy explanations.

H. Frank Farmer, M.D., Ph.D.
Historical Editor
New Smyrna Beach

The plague is spreading

Suddenly, physicians are not alone anymore. A flurry of headlines the past few weeks focused on the spreading tentacles of the liability problem and the dwindling number of insurance companies willing to provide coverage. Joining the company of doctors is an odd assortment of professionals and institutions including lawyers, architects, engineers, accountants, stockbrokers, real estate agents, insurance agents, directors of corporations, nurse-midwives, fishermen and fireworks makers, states, municipalities, and transit systems. All are now starting to feel the pinch of escalating premiums and the growing prospect of having no coverage at all. Although the possibility is far-fetched, *Forbes Magazine* in a recent article played up the bleak scenario where we may end up with a world without insurance.

The lesson to be learned from these developments is that the crisis can only deepen if we continue to ignore the problem. Over the past ten years, while phyicians were wrestling with a steadily worsening professional liability problem, a lot of people were laughing and even accusing the medical profession of trying to manufacture an artificial crisis. Few people are laughing anymore. More and more Americans now realize that we have a brutal tort system that encourages everybody to sue at the slightest perception of an imagined wrong or imperfection. Supreme Court Chief Justice Warren Burger, commenting on the litigious American

society, had implored lawyers on several occasions to seek other alternatives to the never-ending game of litigations.

We all feel that people who get injured by malpractice, incompetence, or negligence ought to be recompensed fairly. But what is happening reflects a system that has totally gone out of hand. The outlandish and outrageous multi-million dollar awards being handed out by juries clearly indicate the flaws in our tort system. When all is said and done, the only winners are the lawyers, some of whom become overnight millionaires by a perverted system of contingency fees that has no counterpart anywhere else in the civilized world.

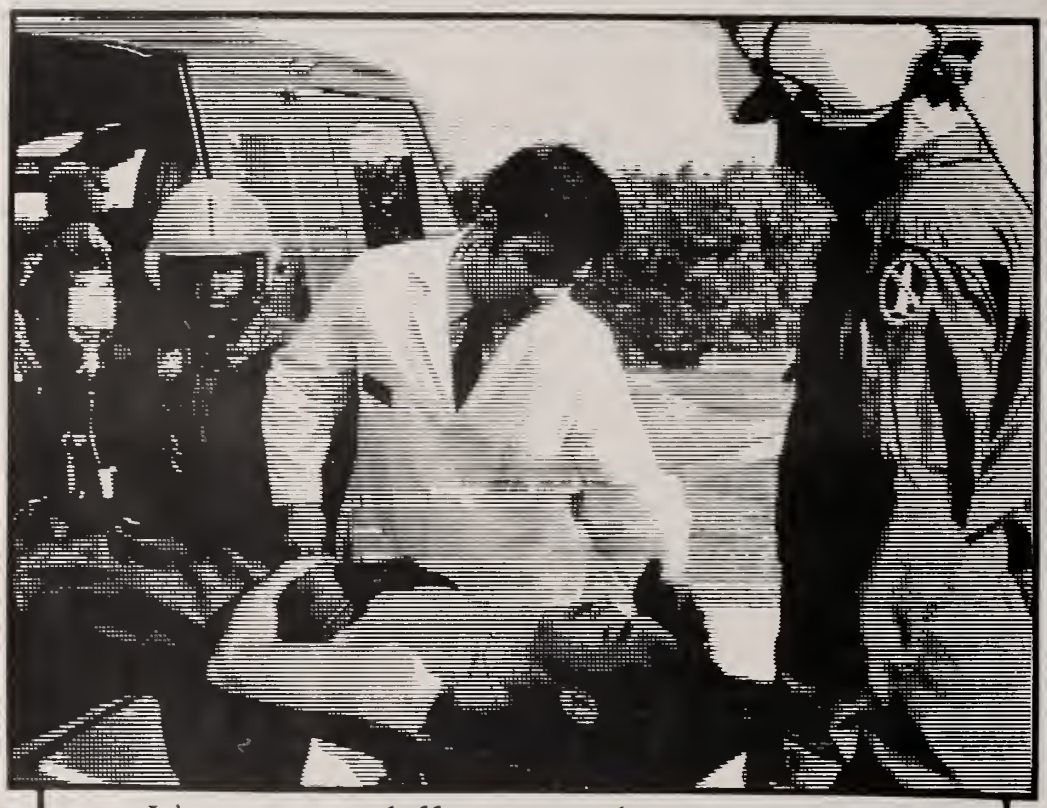
With things getting worse year by year, the suggestion that we may end up eventually with no available liability protection does not seem so far-fetched after all. Some of the biggest insurance companies have been hit by such staggering losses that they are withdrawing from the liability protection market. In addition, corporations such as Manville and A. H. Robins have filed for bankruptcies because of similar losses. Their actions may be a harbinger of things to come.

Nothing clearly dramatizes the evils of our system as the recent air tragedies in Japan and Dallas. A few days after the airplane crash near Tokyo, the president of Japan Air Lines resigned his post even though it was not his fault, while his company made settlements with relatives of the victims expeditiously without the aid of lawyers. In Dallas, even while aviation authorities were still poking through the ashes and debris for the unaccounted dead, newspaper reports told of lawyers hovering like vultures for the big feast ahead.

If it does nothing else, the present situation should at least stir our politicians and policy-makers to acknowledge that there is a critical problem, and perhaps prod them into seeking a far-reaching solution. Any proposed solution, whether it means taking malpractice and liability out of the tort system or passing a uniform liability law, should be fair and equitable. The public should support such action; after all, it should realize that those hefty millions being doled out here and there are coming out of its own pockets. The alternative is the present system that will continue to gouge us all.

R. G. Lacsamana, M.D.
Editor

PHYSICIANS, A WEEKEND WITH THE RESERVE ISN'T JUST ANOTHER DAY AT THE OFFICE.



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BECAUSE SOMETIMES A 50 IS PREFERABLE.

See next page for brief summary of prescribing information.

Brief Summary of Prescribing Information
NORLESTRIN® (norethindrone acetate and ethinyl estradiol tablets, USP)

See section under **Special Notes on Administration and HOW SUPPLIED.**
Before prescribing, please see full prescribing information. A Brief Summary follows

DESCRIPTION
Norlestrin Products are progestogen-estrogen combinations

INDICATIONS AND USAGE
Norlestrin Products are indicated for the prevention of pregnancy in women who elect to use oral contraceptives as a method of contraception.

In clinical trials with Norlestrin 1/50 involving 25,983 therapy cycles, there was a pregnancy rate of 0.05 per 100 woman-years; in clinical trials with Norlestrin 2.5/50 involving 96,388 cycles, there was a pregnancy rate of 0.22 per 100 woman-years.

Dose-Related Risk of Thromboembolism from Oral Contraceptives: Studies have shown a positive association between the dose of estrogens in oral contraceptives and the risk of thromboembolism. It is prudent and in keeping with good principles of therapeutics to minimize exposure to estrogen. The oral contraceptive prescribed for any given patient should be that product which contains the least amount of estrogen that is compatible with an acceptable pregnancy rate and patient acceptance.

CONTRAINDICATIONS
1. Thrombophlebitis or thromboembolic disorders
2. A past history of deep-vein thrombophlebitis or thromboembolic disorders
3. Cerebral vascular or coronary artery disease
4. Known or suspected carcinoma of the breast
5. Known or suspected estrogen-dependent neoplasia
6. Undiagnosed abnormal genital bleeding
7. Known or suspected pregnancy (See WARNING No. 5)
8. Benign or malignant liver tumor which developed during the use of oral contraceptives or other estrogen-containing products.

WARNINGS

Cigarette smoking increases the risk of serious cardiovascular side effects from oral contraceptive use. The risk increases with age and with heavy smoking (15 or more cigarettes per day) and is quite marked in women over 35 years of age. Women who use oral contraceptives should be strongly advised not to smoke.

The use of oral contraceptives is associated with increased risk of several serious conditions including thromboembolism, stroke, myocardial infarction, hepatic adenoma, gallbladder disease, and hypertension. Practitioners prescribing oral contraceptives should be familiar with the following information relating to these risks.

1. *Thromboembolic Disorders and Other Vascular Problems.* An increased risk of thromboembolic and thrombotic disease associated with the use of oral contraceptives is well-established. Studies have demonstrated an increased risk of fatal and nonfatal venous thromboembolism and stroke, both hemorrhagic and thrombotic.

Cerebrovascular Disorders: In a collaborative study in women with and without predisposing causes, it was estimated that the risk of hemorrhagic stroke was 2.0 times greater in users than nonusers, and the risk of thrombotic stroke was 4.0 to 9.5 times greater.

Myocardial Infarction: An increased risk of myocardial infarction associated with oral contraceptives has been reported confirming a previously suspected association. These studies found that the greater the number of underlying risk factors (cigarette smoking, hypertension, hypercholesterolemia, obesity, diabetes, history of preeclamptic toxemia) for coronary artery disease, the higher the risk of developing myocardial infarction, regardless of whether the patient was an oral contraceptive user or not. Oral contraceptives, however, were found to be a clear additional risk factor.

It has been estimated that users who do not smoke (smoking is considered a major predisposing condition to myocardial infarction) are about twice as likely to have a fatal myocardial infarction as nonusers who do not smoke. Oral contraceptive users who are smokers have about a fivefold increased risk of fatal infarction compared to users who do not smoke, but about a tenfold to twelvefold increased risk compared to nonusers who do not smoke. The amount of smoking is also an important factor.

Risk of Dose: In an analysis of data, British investigators concluded that the risk of thromboembolism, including coronary thrombosis, is directly related to the dose of estrogen used in oral contraceptives; however, the quantity of estrogen may not be the sole factor involved.

Persistence of Risk: Two studies have suggested that an increased risk may persist for as long as 6 years after discontinuation of oral contraceptive use for cerebrovascular disease and 9 years for myocardial infarction. In addition, a prospective study suggested the persistence of risk for subarachnoid hemorrhage.

Estimate of Excess Mortality from Circulatory Diseases: The risk of diseases of the circulatory system is concentrated in older women, in those with a long duration of use, and in cigarette smokers.

A study of available data from a variety of sources concluded that the mortality associated with all methods of birth control is low and below that associated with childbirth, with the exception of oral contraceptives in women over 40 who smoke.

The risk of thromboembolic and thrombotic diseases associated with oral contraceptives increases with age after approximately age 30 and, for myocardial infarction, is further increased by hypertension, hypercholesterolemia, obesity, diabetes, or history of pre-eclamptic toxemia, and especially by cigarette smoking.

The physician and the patient should be alert to the earliest manifestations of thromboembolic and thrombotic disorders. Should any occur or be suspected, the drug should be discontinued immediately.

A fourfold to sixfold increased risk of postsurgery thromboembolic complications has been reported in users. If feasible, oral contraceptives should be discontinued at least four weeks before surgery of a type associated with an increased risk of thromboembolism or prolonged immobilization.

2. *Ocular Lesions.* Neuro-ocular lesions, such as optic neuritis or retinal thrombosis, have been associated with the use of oral contraceptives. Discontinue the oral contraceptive if there is unexplained sudden or gradual, partial, or complete loss of vision; onset of proptosis or diplopia; papilledema; or retinal vascular lesions.

3. *Carcinoma.* Long-term continuous administration of estrogen in certain animal species increases the frequency of carcinoma of the breast, cervix, vagina, and liver.

In humans, an increased risk of endometrial carcinoma associated with the prolonged use of exogenous estrogen in postmenopausal women has been reported. However, there is no evidence suggesting increased risk of endometrial cancer in users of conventional combination or progestogen-only oral contraceptives.

Studies found no evidence of increase in breast cancer in women taking oral contraceptives; however, an excess risk in users with documented benign breast disease was reported.

There is no confirmed evidence of an increased risk of cancer associated with oral contraceptives. Close clinical surveillance of users is, nevertheless, essential. In cases of undiagnosed persistent or recurrent abnormal vaginal bleeding, appropriate diagnostic measures should be taken to rule out malignancy. Women with a strong family history of breast cancer, or who have breast nodules, fibrocystic disease, or abnormal mammograms, should be monitored with particular care.

4. *Hepatic Tumors.* Benign hepatic adenomas have been found to be associated with oral contraceptives. Because hepatic adenomas may rupture and may cause death through intra-abdominal hemorrhage, they should be considered in women presenting abdominal pain and tenderness, abdominal mass, or shock.

A few cases of hepatocellular carcinoma have been reported in women taking oral contraceptives. The relationship of these drugs to this type of malignancy is not known at this time.

5. *Usage in or Immediately Preceding Pregnancy; Birth Defects in Offspring, and Malignancy in Female Offspring.* During early pregnancy, female sex hormones may seriously damage the offspring.

An increased risk of congenital anomalies, including heart defects and limb defects, has been reported with the use of oral contraceptives in pregnancy.

There is some evidence that triploidy and possible other types of polyploidy are increased among abortuses from women who become pregnant soon after ceasing oral contraceptives.

Pregnancy should be ruled out before continuing an oral contraceptive in any patient who has missed two consecutive menstrual periods. If the patient has not adhered to the schedule, the possibility of pregnancy should be considered at the time of the first missed period, and oral contraceptives should be withheld until pregnancy has been ruled out. If pregnancy is confirmed, the patient should be apprised of the potential risks to the fetus and the advisability of continuation of the pregnancy should be discussed.

Women who discontinue oral contraceptives with the intent of becoming pregnant should use an alternate form of contraception for a period of time before attempting to conceive.

Administration of progestogen-only or progestogen-estrogen combinations to induce withdrawal bleeding should not be used as a test of pregnancy.

6. *Gallbladder Disease.* Studies report an increased risk of surgically confirmed gallbladder disease in users of oral contraceptives.

7. *Carbohydrate and Lipid Metabolic Effects.* Because decreased glucose tolerance has been observed in a significant percentage of patients, prediabetic and diabetic patients should be carefully observed while receiving oral contraceptives.

An increase in triglycerides and total phospholipids has been observed.

8. *Elevated Blood Pressure.* An increase in blood pressure has been reported in patients receiving oral contraceptives. The prevalence in users increases with longer exposure. Age is also strongly correlated with development of hypertension. Women who previously have had hypertension during pregnancy may be more likely to develop elevation of blood pressure.

9. *Headache.* Onset or exacerbation of migraine or development of headache of a new pattern which is recurrent, persistent, or severe, requires discontinuation of oral contraceptives.

10. *Bleeding Irregularities.* Breakthrough bleeding, spotting, and amenorrhea are frequent reasons for patients discontinuing oral contraceptives. In breakthrough bleeding, nonfunctional causes should be borne in mind. In undiagnosed abnormal bleeding from the vagina, adequate diagnostic measures are indicated to rule out pregnancy or malignancy.

Women with a past history of oligomenorrhea or secondary amenorrhea, or young women without regular cycles should be advised that they may have a tendency to remain anovulatory or to become amenorrheic after discontinuation of oral contraceptives.

11. *Ectopic Pregnancy.* Ectopic as well as intrauterine pregnancy may occur in contraceptive failures.

12. *Breast-Feeding.* Oral contraceptives may interfere with lactation. Furthermore, a small fraction of the hormonal agents in oral contraceptives has been identified in the milk of mothers receiving these drugs.

PRECAUTIONS
1. A complete medical and family history should be taken prior to the initiation of oral contraceptives. The pretreatment and periodic physical examinations should include special reference to blood pressure, breasts, abdomen, and pelvic organs, including Papanicolaou smear and relevant laboratory tests. As a general rule, oral contraceptives should not be prescribed for longer than one year without another examination.

2. Preexisting uterine leiomyomata may increase in size.

3. Patients with a history of psychic depression should be carefully observed and the drug discontinued if depression recurs to a serious degree.

4. Oral contraceptives may cause fluid retention and should be prescribed with caution, and only with careful monitoring, in patients with conditions which might be aggravated.

5. Patients with a past history of jaundice during pregnancy have an increased risk of recurrence of jaundice. If jaundice develops, the medication should be discontinued.

6. Steroid hormones may be poorly metabolized and should be administered with caution in patients with impaired liver function.

7. Users may have disturbances in normal tryptophan metabolism, which may result in a relative pyridoxine deficiency.

8. Serum folate levels may be depressed.

9. The pathologist should be advised of oral contraceptive therapy when relevant specimens are submitted.

10. Certain endocrine and liver function tests and blood components may be affected. (a) Increased sulfobromophthalein retention. (b) Increased prothrombin and factors VII, VIII, IX, and X; decreased antithrombin 3; increased norepinephrine-induced platelet aggregability. (c) Increased thyroid-binding globulin (TBG) leading to increased circulating total thyroid hormone. (d) Decreased pregnanediol excretion. (e) Reduced response to metyrapone test.

Drug Interactions: Reduced efficacy and increased incidence of breakthrough bleeding have been associated with concomitant use of rifampin. A similar association has been suggested with barbiturates, phenylbutazone, phenytoin sodium, tetracycline, and ampicillin.

ADVERSE REACTIONS
An increased risk of the following serious adverse reactions has been associated with oral contraceptives: thrombophlebitis; pulmonary embolism; coronary thrombosis; cerebral thrombosis, cerebral hemorrhage; hypertension; gallbladder disease; benign hepatomas; congenital anomalies.

There is evidence of an association between the following conditions and the use of oral contraceptives, although additional confirmatory studies are needed: mesenteric thrombosis, neuro-ocular lesions, eg, retinal thrombosis and optic neuritis.

The following adverse reactions have been reported in patients receiving oral contraceptives and are believed to be drug related: nausea and/or vomiting, usually the most common adverse reactions, occur in approximately 10% or less of patients during the first cycle. Other reactions, as a general rule, are seen much less frequently or only occasionally: gastrointestinal symptoms; breakthrough bleeding; spotting; change in menstrual flow; dysmenorrhea; amenorrhea during and after treatment; temporary infertility after discontinuance of treatment; edema, chloasma or melasma, breast changes; change in weight; change in cervical erosion and cervical secretion; possible diminution in lactation when given immediately postpartum; cholestatic jaundice; migraine; increase in size of uterine leiomyomata; rash (allergic); mental depression; reduced tolerance to carbohydrates; vaginal candidiasis; change in corneal curvature; intolerance to contact lenses.

The following adverse reactions have been reported and the association has been neither confirmed nor refuted: premenstrual-like syndrome; cataracts; changes in libido; chorea; changes in appetite; cystitis-like syndrome; headache; nervousness; dizziness; hirsutism; loss of scalp hair; erythema multiforme; erythema nodosum; hemorrhagic eruption; vaginitis; porphyria.

Special Notes on Administration
Menstruation usually begins two or three days, but may begin as late as the fourth or fifth day, after discontinuing medication.

After several months on treatment, bleeding may be reduced to a point of virtual absence; reduced flow may be a result of medication and not indicative of pregnancy.

HOW SUPPLIED
Norlestrin [21] 1/50 is available in compacts each containing 21 tablets. Each tablet contains 1 mg of norethindrone acetate and 50 mcg of ethinyl estradiol. Available in packages of five compacts and packages of five refills.

Norlestrin [21] 2.5/50 is available in compacts each containing 21 tablets. Each tablet contains 2.5 mg of norethindrone acetate and 50 mcg of ethinyl estradiol. Available in packages of five compacts and packages of five refills.

Norlestrin [Fe] 1/50 is available in compacts each containing 21 yellow tablets and 7 brown tablets. Each yellow tablet contains 1 mg of norethindrone acetate and 50 mcg of ethinyl estradiol. Each brown tablet contains 75 mg of ferrous fumarate, USP. Available in packages of five compacts and packages of five refills.

Norlestrin [FE] 2.5/50 is available in compacts each containing 21 pink tablets and 7 brown tablets. Each pink tablet contains 2.5 mg of norethindrone acetate and 50 mcg of ethinyl estradiol. Each brown tablet contains 75 mg of ferrous fumarate, USP. Available in packages of five compacts and packages of five refills.

Norlestrin [28] 1/50 is available in compacts each containing 21 yellow tablets and 7 white inert tablets. Each yellow tablet contains 1 mg of norethindrone acetate and 50 mcg of ethinyl estradiol. Available in packages of five compacts and packages of five refills.

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Legal and ethical implications of joint ventures

I remember being warned, even in medical school, about certain practices that were thought to be unethical. We were cautioned never to refer patients surreptitiously to a pharmacy in which we had a financial interest. In the state of near poverty in which I lived as a medical student, I could not imagine myself ever owning a pharmacy, or anything else worthwhile for that matter, but for some reason that particular ethical violation, although minor when compared to so many other ways in which physicians could exploit patients, has always stayed in my mind. I have always been careful to refuse free prescription pads from pharmacies which posted their name on the back of the blanks.

Chapter 458.331(1)(o) of the Florida Medical Practice Act lists as a ground for discipline: "Excercising influence on the patient or client in such a manner as to exploit the patient or client for financial gain of the licensee or a third party which shall include, but not limited to, the promoting or selling of services, goods, appliances, or drugs, and the promoting or advertising on any prescription form of a community pharmacy unless the form also states, 'This prescription may be filled at any pharmacy of your choice.'"

The notion of possibly exploiting patients by referring them to a pharmacy in which the physician has a secret financial interest seems archaic, trivial and almost humorous when compared to contemporary arrangements in which physicians are involved in joint business ventures with hospitals, other physicians, and businessmen in the ownership and management of expensive biomedical equipment and health care facilities.

There are a large number of hospitals, in Florida and elsewhere, which are owned, in total or part, by practicing physicians who are also members of that hospital's medical staff. In some cases, stock shares in the hospital were granted to a physician contingent upon his continuing to admit patients, or perhaps even upon his promise to increase admissions and utilization of other hospital services. In some cases, profits promised to a physician-investor are not dependent on the amount of capital he has invested at all, but upon his ability to generate revenues for the hospital by utilizing the facility. Similar deals are being struck in the ownership of out-patient diagnostic centers, imaging centers, surgical centers, and a variety of other health care services. In most of these situations, certain types of physicians, such as dermatologists, allergists and psychiatrists, are often denied an opportunity to purchase shares because it is known that they are not likely to utilize the facility as much as internists or surgeons.

I have had some personal experience in these matters, having been rather closely involved with one hospital in Miami. I have served on many committees, including the executive committee, and I have been chairman of several. I would estimate that I have spent 1200 hours of uncompensated time serving this hospital over the past eleven years, and when the administration announced a joint venture in which physicians and the hospital would build and operate an out-patient diagnostic center, I signed a letter of intent to participate the very day the notice of inquiry reached my office. I have not been asked to purchase a share, however, even when some other physicians I know, who have not devoted any time on committees in service to the hospital, were offered a second share.

I sincerely believe that the hospital administration has nothing against me personally, but their decision to exclude me because of my specialty,

despite my eleven years of devotion, is typical to me of the crass commercialism that is so prevalent now in the health care field. If allowed to proceed unchecked, these practices may augur the destruction of the last remnants of decency and humanity in the medical profession.

I would like to describe some joint ventures that I have heard about, either from conversations with colleagues, from the business of the Board of Medical Examiners, or from having read of them in a variety of journals or newspapers. Decisions about their propriety may have a major impact on future business endeavors for physicians, on health care financing, and on the integrity and perhaps even the very existence of the medical profession.

Several internists and family physicians on the west coast of Florida were offered, for $1250.00, shares in a local pharmaceutical company which manufactures a generic equivalent of a well known cardiac drug. The company representative made it clear that if they wrote prescriptions for this generic brand, the company would profit and so would shareholders. They began to write for this particular generic brand every time they believed a patient needed this cardiac drug, and perhaps some even used the drug when not really even indicated. Several of the doctors even wrote "medically necessary," in their own handwriting, preventing the pharmacist from substituting other generic brands of the same drug, which may have been less expensive or perhaps even more effective. Have these physicians done anything wrong?

An orthopedic physician owned a half interest in a physical therapy practice with a licensed physical therapist, located several miles from his own office. If he had employed a physical therapist in his own office, patients could presume that he may benefit financially from a referral, but by separating the physical therapy office by several miles, patients could not know that the doctor owns an interest in that business. On many occasions, the orthopedist referred patients to this physical therapist, even though the patient lived in a different area of the county, and may have been better off seeing a physical therapist closer to home. Should the orthopedist be required to inform patients that he owns the physical therapy facility before referring them? Are these referrals improper?

An ophthamologist, who does medical and surgical ophthamology, employs an optometrist in his office who performs refractions. Patients are given prescriptions and are directed to a particular optical laboratory where they can have their eye glasses or contact lenses made. This laboratory is located about a half mile from the ophthamologist's office, and there is no way for patients to know that the ophthamologist owns the facility. The facility is not convenient to many patients, and prices are not a particular bargain, but still the ophthamologist directs most of his patients to this facility without informing them that he owns it. Is this practice improper? Should he inform patients that he owns the optical laboratory?

A physician sets up an office to perform echocardiograms and other special studies. He informs local cardiologists and internists that they can bill Medicare and other insurance companies directly for the special studies at prevailing rates, and he in turn will receive payment from them at a lower rate. In essence this contractual relationship produces a substantial fee to the referring physician for each patient sent for a special study. Does this arrangement constitute fee splitting? Is it illegal or unethical? Is this analagous to a physician charging more to a patient or insurance company for the interpretation of a pap smear than he must pay to the pathologist who actually is reading the slide?

A group of businessmen, including several physicians, builds an imaging center housing an expensive NMR unit. They have a lavish cocktail party at the poshest hotel in town and invite many local physicians and their wives, and make a brief presentation about their project. They explain the merits of NMR over CAT scans and conventional radiologic studies, and then suggest that each time a patient is referred for a study, the referring physician will acquire a single share of common stock in the NMR corporation, with a present par value of $25.00. A study is expected to cost $1200.00 at this facility, while a study at the only other NMR facility in town, which offers no equity interest to a referring physicians, costs $850.00. Does this contractual relationship represent illegal or unethical activity?

Shall the Board of Medical Examiners hold hearings and pass rules that instruct physicians about these matters, determining what business relationships are proper and legal, and which will be grounds for discipline by the board? What is your opinion on this subject?

Richard J. Feinstein, M.D.
Miami

Malpractice relief not on the way yet

The monumental efforts of the Florida and Illinois medical societies resulted in modest malpractice legislation. Both laws have similar, significant and ominous elements. The lawmakers insisted on more medical education and more licensing requirements, pointing the finger at medical incompetence and negligence as the cause of the crisis. They failed to mention that American

medicine was the best ten years ago. And after these years of extensive CME programs, the legal crisis only deepened.

Medical malpractice is not the cause of the crisis. There are a hundred thousand accidental deaths and several million major accidental injuries in this nation every year. Such incidents related to health care are negigible. Yet only the physician must carry a horrendous personal liability insurance. The new regulations also include some form of manipulation of the insurance industry. While the insurance companies' primary interest is their profit and survival, rearranging the insurance coverage has nothing to do with the problem. Even the righteous-sounding new arrangement of payment to injured parties and attorneys has nothing to do with the root of the crisis. It is my impression that the recently passed or planned legislation in such key states as Florida, Illinois, New York, California, etc. are mere cosmetic performances without substance. If I were a liability attorney, I would not lose sleep over the new statutes. They can be easily challenged in sympathetic courts. The success of such challenge is highly probable.

The failure of our defenses calls for complex explanation. There is only limited unity within the profession. The low-risk specialties and the medical societies in low risk states feel that they should not pay for the high risks of others. We even have a new emerging specialty of physicians who are willing to testify for any cause, at any time, on any side of any conflict for a fee. Our defenses lack the imagination and aggressiveness of the trial lawyers fighting for the liability millions. A major source of our failure is that we follow the traditional route which failed us in the past. We keep returning to the legislators who are dominated by the attorneys who have personal financial interests in the liability bounty. They have the clout to preserve the status quo and frustrate any meaningful reform.

We simply have to explore new avenues. The medical liability crisis has developed not because of an incompetent profession but because of the legal-judicial developments of the last three decades supported by liberal-activist courts. Example: the frivolous suits, aboiut two third of all suits, are very damaging to the physician professionally, economically and emotionally. They are also extremely profitable for the attorneys. The insurance companies rather pay than fight in court. It is "the economical" solution. The frivolous suit is legally possible and judicially sanctioned for profit. It is unthinkable in any civilized country, and in my humble opinion, constitutionally untenable. It is time for the present more conservative U.S. Supreme Court to review this and similar practices which make up the backbone of the crisis.

Medicine used to be a biological-social science. We still teach it and practice it as such. But medical diagnosis and therapy became legal acts. We are held accountable for practices which we never heard about in school or were never so stated by statute. If we practice a legal act, that standard should be defined in legal terms by the licensing authority: what tests to run, what therapeutic course to follow. Traditional medicine gave us ample freedom of choice. Today's "legalized" medicine is unyielding. The government which enforces liability should have the responsibility to define accountability by law before the fact and before the enforcement, if I read the Constitution properly.

Is malpractice relief coming (Editorial J. Florida MA July 1985)? Currently, I see no such sign. We must do better.

James Scott, M.D.
Streator, Illinois

Federal liability law needed

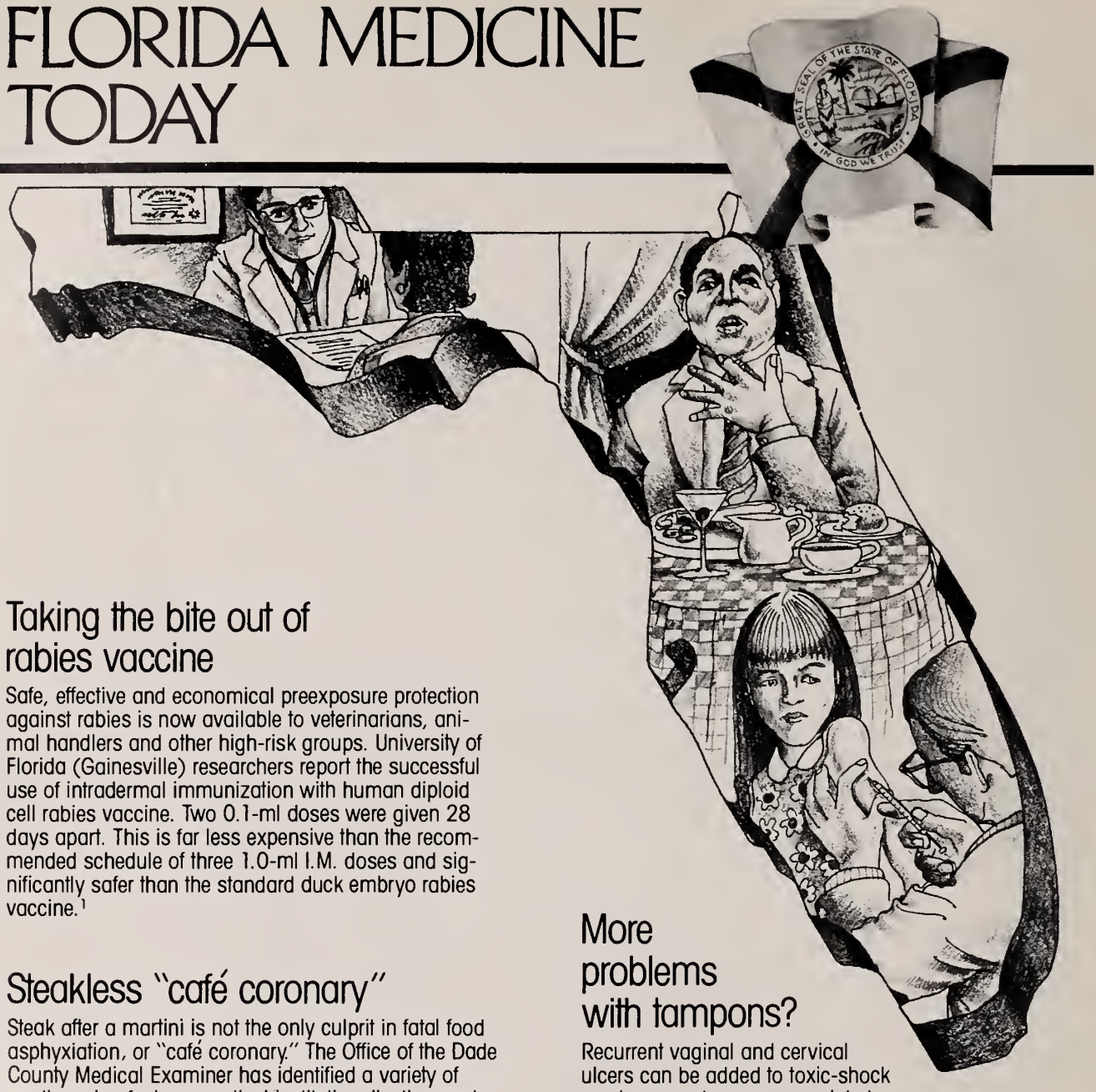
The problem of liability claims and insurance coverage is now affecting all segments of our society, not just hospitals and the medical profession. The municipalities, the pharmaceutical industry, aircraft industry, airlines, architects, engineers, CPA's, and the automotive industry are being devastated by multi-million dollar liability judgements and soaring insurance premiums. Several large municipalities are considering discontinuing their liability insurance as they cannot afford it.

In every crisis, there is an opportunity for change. If the above groups could form a task force and, along with the insurance industry, approach the problem on a federal level, there would be a chance for change. This task force would be a very powerful political bloc which would get the attention of senators and congressmen. What is needed is a uniform federal liability law addressing the current differences in various state laws, pain and suffering, and contingency fees. Any of the above groups going alone would have a very difficult time and probably fail, but together, the fight could be won.

William W. Schildecker, M.D.
Daytona Beach

Roche salutes

FLORIDA MEDICINE TODAY



Taking the bite out of rabies vaccine

Safe, effective and economical preexposure protection against rabies is now available to veterinarians, animal handlers and other high-risk groups. University of Florida (Gainesville) researchers report the successful use of intradermal immunization with human diploid cell rabies vaccine. Two 0.1-ml doses were given 28 days apart. This is far less expensive than the recommended schedule of three 1.0-ml I.M. doses and significantly safer than the standard duck embryo rabies vaccine.[1]

Steakless "café coronary"

Steak after a martini is not the only culprit in fatal food asphyxiation, or "café coronary." The Office of the Dade County Medical Examiner has identified a variety of predisposing factors: medical institutionalization, sedative drugs, parkinsonism, old age, poor dentition and alcohol consumption. With institutionalized adults, friable foods not amenable to the usual rescue techniques are often involved. Observers were present in a full 85% of fatal cases, indicating a need for increased public awareness. Instruments for retraction of foreign bodies should be made readily available at public facilites and nursing homes. And new techniques should be developed to deal with soft foods that cannot be cleared by a grasping device or the Heimlich maneuver.[2]

More problems with tampons?

Recurrent vaginal and cervical ulcers can be added to toxic-shock syndrome as tampon-associated ailments. A report from South Miami Hospital indicates they may occur in one-fifth of menstruating women and are more common with long-term use. Moreover, microulceration has been reported within one hour after tampon insertion. Symptoms may also be subtle and often the same as those for which tampons are used, including spotting and discharge. Dyspareunia, urinary frequency and urgency and dysuria may also be present. Care must be taken to avoid undue delay in the diagnosis and to rule out carcinoma.[3]

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References: 1. Burridge MJ *et al. JAMA 248*:1611-1614, Oct 1, 1982.
2. Mittleman RE, Wetli CV: *JAMA 247*:1285-1288, Mar 5, 1982.
3. Weissberg SM, Dodson MG: *JAMA 250*:1430-1431, Sep 16, 1983.

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*Feighner JP, *et al*: *Psychopharmacology 61*:217-225, Mar 22, 1979

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LIMBITROL® Ⓝ Tranquilizer-Antidepressant
Before prescribing, please consult complete product information, a summary of which follows:
Indications: Relief of moderate to severe depression associated with moderate to severe anxiety
Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.
Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).
Usage in Pregnancy: **Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).
Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated, sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude toxic, oversedation, confusion or anticholinergic effects.
Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.
The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:
Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.
Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.
Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.
Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.
Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.
Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.
Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.
Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion.
Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.
Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.
Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h.s.* dose may suffice for some patients. Lower dosages are recommended for the elderly.
Limbitrol DS (double strength) Tablets, initial dosage of three or four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required.
Limbitrol Tablets, initial dosage of three or four tablets daily in divided doses, for patients who do not tolerate higher doses.
How Supplied: *Double strength (DS) Tablets,* white, film-coated, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt), and *Tablets,* blue, film-coated, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 50.

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Manuscripts should be submitted to R.G. Lacsamana, M.D., Editor of *The Journal of the Florida Medical Association, Inc.*, P.O. Box 2411, Jacksonville, FL 32203, in original and three duplicate copies. Copies should be typewritten and double spaced.

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Each of the following should begin on a new page: abstract, first page of text, legends for illustrations, tables and acknowledgments. Each page should include a running head and surname of lead author.

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Author Information: List affiliations for each author. If author's present affiliation is different from affiliation under which the work is done, both should be given. The mailing address of the lead author should also be included.

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Letters submitted for publication should be designated "For Publication."

When received, the lead author will be sent an acknowledgment of receipt and a copyright agreement which MUST be signed by all collaborators. Should the article fail to be accepted for publication, the agreement will be returned.

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Thin needle aspiration biopsy as diagnostic tool: community hospital experience

Jorge G. Arroyo, M.D. and Frank M. Taylor III, M.D.

ABSTRACT: Thin needle aspiration cytology is a technique which, when used advisably, provides an accurate and economical mode of diagnosis. Our experience encompasses multiple anatomic sites (breast, lung, liver, thyroid, pancreas, lymph node and subcutaneous tissues) and spans a period of four years. Of 750 cases, 593 have been followed-up with surgical biopsy and/or six months of clinical documentation. Among these cases, we report no false-positives, and an 8.8% false-negative rate. A key to accurate diagnosis is meticulous collection and preparation of material, which is assured by close pathologist interaction at the time of the procedure.

The Authors
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FRANK M. TAYLOR III, M.D.
Dr. Arroyo and Dr. Taylor are both Clinical Assistant Professors of Pathology at the University of South Florida College of Medicine and St. Joseph's Hospital, Tampa.

Diagnosis via thin needle aspiration cytology dates to the 19th century when Leyden[1] in 1883 successfuly described the cytologic components of bronchopneumonia. While much of the development of cytologic diagnosis awaited Papanicolaou's definitive work in the 1940s, thin needle aspiration cytodiagnosis was pioneered and fostered as a legitimate diagnostic tool for the two preceding decades at the Karolinska Institute in Sweden and Memorial Hospital Center in New York.[2]

In Europe, the method flourished and gained wide usage among internists and hematologists. In the United States, however, early popularity waned in the wake of publications emphasizing the physical limitations of the procedure and warning against the possible seeding of tumor cells.[3]

More recently, scientific and medical economic developments within the United States have caused a new surge of interest in the technique. Indeed, our experiences with thin needle aspiration biopsy prove it to be a valuable diagnostic tool. When compared with the open biopsy that it sometimes is able to replace, the differences in morbidity, complication rates, and cost to the patient are significant.[4]

Materials and methods • During the past 48 months, we have examined over 750 thin needle aspiration biopsies which have been performed in our hospital or referred to us by private physicians. In this study we have included cases in which tissue diagnosis was subsequently obtained and cases in which there is more than six months clinical follow-up if surgical confirmation was not possible.

All in-hospital aspirations required similar material and followed a common routine. When necessary, ultrasonography, biplane fluoroscopy,

and/or CAT scan guidance were provided by radiologists for precise placement of the needle into the suspected lesion. Some cases required only palpation and manual fixation of the mass.

Necessary equipment included a narrow caliber needle, preferably 22 gauge, ranging in length from 3 to 20 cm. Chiba University needles were used almost exclusively for lung and deep organ biopsies. Additional material included 20 ml plastic syringes, Cameco syringe holders, Coplan jars with 95% alcohol, and 10 ml containers with 50% alcohol. Culture media and special fixatives for electron microscopy were made available when clinically indicated.

In all procedures carried out in the hospital, the actual aspiration and preparation of slides were performed or immediately overseen by a pathologist. Once obtained, the smears were promptly fixed in 95% alcohol and stained via Papanicolaou rapid staining technique or hematoxylin and eosin. A fraction of the aspirate was routinely maintained in 50% ethyl alcohol for later cytospin and/or cell block preparation. Following examination of initial smears, the pathologist made a pronouncement as to adequacy of the specimen and, when possible, rendered a provisional diagnosis. This procedure allowed for immediate resampling when the first aspirate was found to be inadequate for diagnosis. A final report was issued after all the slides, special procedures, and stains became available.

Specimens received by way of the outpatient laboratory had been prepared in the offices of subscribing physicians and arrived prefixed in 95% ethyl alcohol. From that point, specimens were treated in a manner similar to that utilized for hospital patients. All smears were reported as "positive," "suspicious," "negative for malignancy," or "unsatisfactory."

Results • A total of 593 cases were selected for this study. The distribution of cases is shown in Table 1. Of these, 259 were negative for malignancy, while 225 were positive for malignancy. Of the remainder, 45 were designated as suspicious for malignancy and 64 were deemed unsatisfactory for diagnosis.

After surgical and/or thorough clinical follow-up, no false-positives were found among any of the malignant cytologic diagnoses in our series. Of the 45 "suspicious" cases, 35 were later found to be malignant. Among the 259 "benign" designations, 21 were later reported as having had malignancies. Considering the "benign" and "malignant" categories only, our sensitivity for detecting malignancy was 91%, while our specificity was 100% (Table 2).

Breast, lung, liver, and thyroid were the sites most frequently examined in our series. Among our group of breast aspirates, every positive or suspicious case was subsequently biopsied. In addition, several cases reported to be benign were biopsied. Of the 28 cases reported as suspicious, 22 were found to be malignant on biopsy. Among the 154 cases reported as benign, eight were subsequently found to be malignant on biopsy. A total of 56 of the 303 breast aspirates were not satisfactory for diagnosis. The vast majority of these were specimens received from physicians offices (Table 3).

Table 1. — TNAB.

Breast	302
Lung	121
Thyroid	52
Lymph Node	35
Liver	27
Pancreas	10
Bone	12
Salivary Gland	8
Soft Tissue	6
Skin	6
Kidney	6
Eye	3
Scalp	2
Adrenal	2
Orbit	1
	593

Our experience with lung aspirates paralleled that with the breast. In all cases, our diagnosis of malignancy was confirmed either surgically or clinically. Of the seven cases reported as suspicious, five were subsequently proven to be malignant. Of 26 reported benign aspirates, nine were later proven to be malignant (Table 4).

Liver aspirations yielded no false-positives or false-negatives. One case reported as suspicious on thin needle aspiration was subsequently found on open biopsy to be malignant (Table 5).

Similar is our experience with needle aspirations of the pancreas. Two benign as well as six malignant diagnoses were later confirmed. Two cases called suspicious proved to be well differentiated adenocarcinomas at surgery.

Table 2. — Thin Needle Aspiration Biopsies, All Sites.

		Benign	Malignant
Benign	259	238	21
Suspicious	45	10	35
Malignant	225		225
Unsatisfactory	64		
Total	593	248	281

Sensitivity 91%
Specificity 100%

Table 3. — Thin Needle Aspiration Biopsies of Breast Lesions.

		Benign	Malignant
Benign	154	146	8
Suspicious	28	6	22
Malignant	64		64
Unsatisfactory	56		
Total	302	152	94

Table 5. — Thin Needle Aspiration Biopsies of Liver Lesions.

		Benign	Malignant
Benign	11	11	
Suspicious	1		
Malignant	13		13
Unsatisfactory	2		
Total	27	11	14

Fifty-two thin needle aspiration biopsies of the thyroid gland were performed. Of the 42 cases reported as benign, only one was subsequently found on surgical exploration to harbor a carcinoma. Of the two aspirations reported as suspicious, one was later shown to be malignant. All three aspirations reported as malignant were confirmed via surgery to be neoplastic (Table 6).

Thirty-five lymph nodes were sampled and our 15 benign and 18 malignant diagnoses were confirmed. We were unable to make a definite diagnosis of malignancy in two cases of small cell lymphomas. They were reported as suspicious in the aspiration biopsy.

Discussion • A review of the 593 needle aspiration cases reveals a number of salient features. Of foremost importance to our department was the complete absence of false-positive reports among the outright diagnoses of malignancy. This compares favorably with the small but nevertheless meaningful 1% false-positive rate reported in most series.[5-11] Conversely, of the 230 cases reported as benign, further investigation yielded 21 malignant diagnoses, or an 8.8% false-negative rate. An additional important result of this study has been appreciation for the pathologist's involvement in the actual performance of the aspiration procedure. Although this has been shown to be time-consuming and on some occasions not absolutely necessary, in most instances the oportunity to become acquainted with the clinical facts and to discuss the radiologic findings where available has been of great assistance in reaching a specific diagnosis. This is contrasted with the relatively high incidence of cytologies classified as suspicious or unsatisfactory which are received from outside sources without benefit of on-site pathologist interaction.

The various aspiration sites have yielded specific insights peculiar to the particular technique involved and anatomic location. Regarding thin needle aspiration biopsies of the breast, it is our experience and that of the literature in general[9-12] that a cytology positive for malignancy is useful to the clinician and patient in a number of unique ways. For one, it allows the clinician to inform the patient of his or her disease. Knowing this, the necessary one-stage surgical procedure can be scheduled, preceded by the indicated staging and consultation methodologies. As mentioned previously, several reports in the literature indicate cases of false-positives by large, very experienced groups. Because of our limited number of cases and the usual lack of clinical information in breast specimens, we advise the surgeon to confirm our cytologic diagnosis by frozen section before the mastectomy is carried out, simultaneously securing an adequate sample of tumor for receptor assays.

Intrathoracic lesions were routinely aspirated under the able guidance of the radiologists. With the aid of biplane fluoroscopy or CAT scan, the radiolo-

Table 4. — Thin Needle Aspiration Biopsies of Lung Lesions.

		Benign	Malignant
Benign	26	17	9
Suspicious	7	2	5
Malignant	87		87
Unsatisfactory	1		
Total	121	19	101

Table 6. — Thin Needle Aspiration Biopsies of Thyroid Lesions.

		Benign	Malignant
Benign	42	41	1
Suspicious	2	1	1
Malignant	3		3
Unsatisfactory	5		
Total	52	42	5

gist would place the needle (preferably a 22 gauge Chiba) into the suspicious area. The pathologist then obtained the aspirate and prepared the slides immediately, examining for adequacy. In the case of inaccurate localization and/or inadequate sampling, immediate repeat of the procedure could be performed conveniently until a satisfactory specimen had been harvested. In our sampling of 120 lung lesions, only one specimen was judged unsatisfactory, that patient having developed a complete pnuemothorax on the first puncture and thereby requiring immediate placement of a chest tube. This, incidentally, was our only serious complication.

In addition to the Chiba needle, the Wang needle has also been helpful. This was particularly indicated in attempting to aspirate submucosal and parabronchial lesions visualized via the fiberoptic bronchoscope.

Even though our desire was to properly categorize lesions according to cell type, a number of pragmatic considerations supervened in dealing with thoracic lesions. The first, and most obvious, was distinguishing between benign and malignant. If malignant, however, our primary concern was in separating small cell anaplastic carcinoma from the remainder of bronchogenic malignancies.

The liver was the intraabdominal site most frequently sampled. Owing to the small diameter of the Chiba needle, a large area of the liver could be sampled with negligible risk to the patient. Based on our experience, it is our contention that thin needle aspiration biopsy is more sensitive, especially in diagnosing metastatic tumors, and far less dangerous than the conventional "core" needle biopsy using wider caliber needles such as the Vim-Silverman.[13]

Particularly rewarding has been our experience in pancreatic aspiration biopsies. Using CAT scan to insure correct placement, we have been able to diagnose six cases of pancreatic carcinoma.

Thin needle aspiration biopsy of the thyroid has also proven itself to be a useful diagnostic aid and clinicians are becoming more confident in it. It has saved some patients the necessity of surgery when the clinical diagnosis of benign colloid goiter was supported cytologically.

Enlarged superficial lymph nodes were usually an easy target and did not require radiologic assistance for localization. Diagnosis was usually simple and clear-cut in cases of metastatic tumor, cases of lymphoma proving to be more of a diagnostic challenge. Thin needle aspirations have shown themselves to be particularly helpful in obtaining samples for fungal and bacterial culture prior to the institution of definitive antibiotic therapy.

Conclusion • From our results, we believe that thin needle aspiration biopsy has proven to be a valuable diagnostic tool. Its overwhelming potentiality lies in diagnosing malignancies. In this context, there must be adequate sampling and proper handling of the specimens. Pathologist involvement in the obtaining and preparing of specimens assures a maximum of cytologic detail. An abundance of clinical correlative information and/or surgical biopsy confirmation, where clinically feasible, provide a safeguard against a low but widely reported false-positive rate. Finally, thin needle aspiration can provide, when used advisably, an economical approach to work-up of patients. Its usage can allow for diagnosis in the outpatient setting, more convenient planning of treatment modality, and a potential decrease in complications from invasive procedures.

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Toxic environmental substances and concerns of their effects on public health

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ABSTRACT: An eight-step plan is suggested for implementing a concerted effort to investigate a pollution situation as soon as its potential source becomes identified.

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There are at least three reasons why it is important that we have a concerted plan of action when potentially health threatening pollution situations become identified. The first is ecological, for Florida is particularly vulnerable to environmental perturbations, and the very nature of the water supply places the general population at risk to health insults. The population is rapidly expanding, resulting in phenomenal growth in land development and building construction while placing new demands upon basic water systems. Moreover, the physical and geological characteristics of the terrain with clusters of highly industrialized populations in close proximity to broad agricultural areas and new industrial complexes enhance the potential for both surface and groundwater contamination via run-off of agricultural pesticides and fertilizers, seepage from unmanaged toxic waste dumpsites, and various industrial effluents.

The coral matrix of the Biscayne, Floridan and other acquifers is particularly susceptible to chemical seepage and groundwater contamination as a result of its somewhat unique geophysical characteristics, and Lake Okeechobee, the major source of surface water for the southern part of the state, is bordered by agricultural areas whose productivity is highly dependent on pesticide and fertilizer use. In northern Florida, the potential for contamination of the St. Johns River from groups of industrial complexes also renders this important source of surface water highly susceptible to contamination. Apart from water supply, the semitropical climate and the potential it affords to yearround agricultural programs (as well as pest and mosquito prevalence) necessitates extensive use of chemicals for both food production and control of vector-borne diseases.

Secondly, the potential health impacts chemical pollutants have on public health and family practitioners are gaining greater attention. Both components of this health team are being confronted with health related problems and concerns related to pollution; yet there is practically no coordinated approach to diagnosis, management or research by the primary and/or the community health practitioner.

A third reason these concerns are timely is the general public and individual patient interest currently stemming from the numerous episodes of environmental contamination which have appeared in the public media over the past few years. At the national level, events such as Love Canal and Times Beach and the gradual recognition of many unmanaged hazardous waste dumpsites have increased general concern for human and environmental protection against the ravages of toxic and environmentally destructive chemicals.

Response to pollution • In Florida, several toxic waste dumpsites have received Superfund priorities. Similarly, at the state level, public concern has stemmed from reports of contaminated food and water supplies by Temik (aldicarb) and EDB (ethylene dibromide; 1,2-dibromoethylene) and the contamination of raw and finished drinking water with trihalomethanes and other chlorinated solvents, especially trichloroethylene and tetrachloroethylene as well as gasoline from leaking underground storage tanks.

From a public health perspective the recognition of potential "hotspots" of pollution and the associated potential population at risk necessitates a very specific and organized response. Past experiences in such areas as Love Canal have emphasized the importance of public information during all stages of any investigation. A contamination incidence calls for the identification of the who, the what, the where and the how as well as the subsequent steps of cleanup, disposal, prevention of recurrence and necessary health surveillance. Ideally the following steps should be implemented when a potential source of pollution is recognized:

1. Identification and delineation of the source of pollution and the chemicals involved, their toxicities, and their potential for movement through the environment via food chains and/or surface or groundwaters.
2. Immediate institution of appropriate human and environmental monitoring programs to effectively assess exposure and identify high risk subgroups within the area.
3. Collaboration with appropriate state agencies to assure that appropriate cleanup and disposal of the contamination is set in motion.
4. Institution of appropriate measures of monitoring and protecting workers involved in the cleanup procedures.
5. Dissemination of the appropriate public information.
6. Conduction of appropriate epidemiologic studies (when necessary) to determine the extent of the health effects and the relative risks resulting from the environmental exposure as well as the disease end-points of concern.
7. Enforcement of regulatory steps to prevent recurrence of similar contamination situations.
8. Continuation of postexposure monitoring and epidemiologic studies well past the initial date(s) of exposure.

Epidemiologic studies • The primary objective of epidemiologic studies is to define the relationship between environmental exposure and disease effects and to determine whether or not the exposure-effect is causal. Such a process will always be an indirect assessment of etiology, which means that very precise measurements of exposure must be related to equally precise expressions of disease. The association of environmental exposure with any specific disease end-point calls for well designed analytical studies. Causality will be suggested when: (a) a dose-response relationship is demonstrated, (b) the suspect exposure precedes the suspect illness, (c) the strength of the association is strong and is subsequently demonstrated in similar and later studies in other parts of the world, and (d) the observed effect falls within the bounds of biologic plausability. Limitation of epidemiologic studies will occur when the sample size of the population under study is insufficient to demonstrate a health effect with a given degree of power. This is dependent upon the magnitude of exposure and the frequency expected relative to the disease being studied. Rare diseases require very large study populations. Another limitation is based upon the latency period of a disease under study. This is especially the case in measuring risks of cancer where a 10-30 year induction period requires the use of sizable prospective studies or the utilization of retrospective studies where the exposure has already occurred and thus introduces inherent risk of recall bias. A final limitation of such studies relates to the clinical nonspecificity of the response.

To assess the health effects which may (or may not) have resulted from exposure to environmental chemicals, the family physician must take great care to ascertain the individual's exposure history. This calls for a detailed analysis of the nature of the work in which the patient has been involved, whether acute or chronic (or both) exposure has occurred, and what compounds were involved and when. The

clinical manifestations being presented by the patient, if related to the exposure, should conform to the known toxicities of the compound(s) to which the patient has been exposed. Sometimes exposure may be verified by appropriate urinary, fat or other tissue residue studies. Under such circumstances the body burdens of the suspect chemicals can be quantified. It is thus apparent that the investigative steps conducted by both the public health physician and the family doctor follow the same investigative channels, and the ultimate resolution as to the relationship of exposure and suspected health effects will require a combination of clinical acumen and epidemiologic skills of both types of health care deliverers.

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Risk factors for tumor recurrence after radical hysterectomy for stage IB squamous cancer of cervix

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ABSTRACT: Seventy-six patients with stage IB squamous cell cancer of the cervix were analyzed for histopathologic risk factors for recurrence. Disease recurred in 12 patients. Age, race, tumor grade, tumor type, vascular space involvement, peripheral or stromal eosinophilia and positive mucin stain were not found to be significant risk factors. Tumor size (p = .0107), depth of stromal invasion (p = .0006), remaining disease free stroma (p = .0231) and nodal involvement (p = .0436) were significant prognostic variables. Stepwise discriminate analysis revealed depth of stromal invasion as the most important risk factor.

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Radical hysterectomy is an accepted treatment for stage IB squamous cell cancer of the cervix. Five-year disease free rates have been reported to be about 85%.[1-22] Several investigators have attempted to identify risk factors for increased recurrence after surgery and thus determine who would benefit from adjuvant radiation therapy. These factors have included age,[18] cell type,[23] tumor grade,[1] nodal metastases,[9] peripheral and stromal eosinophilia,[7] vascular space involvement[4] and depth of stromal invasion.[1,10,16]

This report is an attempt to clarify the role of these variables as prognostic indicators in stage IB squamous cell cancer of the cervix.

Materials and methods • From September 1973 to December 1981, 129 patients underwent radical hysterectomy , performed by our surgeon, at University Hospital of Jacksonville, Florida, and seventy-six of these patients were studied. Those included in the study were clinically in stage IB and had pure squamous cancer. Those patients with stage IIA, adenosquamous histology or primary endometrial cancers were excluded. Two-year follow up was obtained on all 76 patients. The procedure performed was a Clark-Wertheim radical hysterectomy with pelvic lymphadenectomy and paraaortic lymph node sampling. The average number of nodes excised was 35. Pathology specimens were reviewed with respect to factors previously outlined. Depth of stromal invasion was measured from the basement membrane. Depth of remaining tumor-free stroma was also measured. Charts were reviewed to identify those patients who had received radiation therapy and the reason for such therapy. Sites of recurrence were noted. In 35 cases, the specimen was stained with mucin stain. Though all these tumors had been

read as "pure" squamous, an attempt was made to determine if a positive mucin stain was an indication of increased recurrence risk. Statistical tests used were Fisher's exact test, chi-square test and stepwise discriminate analysis.

Results • Sixty-four (84%) of 76 patients remained disease free; 12 (16%) had recurrence. Mean age for the disease-free group was 40.03 ± 11.31, and for the recurrence group 39.66 ± 13.78. Fifty-two (68.4%) patients were white, 23 (30.3%) black, and one (1.3%) oriental. In the recurrence group, eight (67%) were white and four (33%) black.

In the whole group, seven (9.2%) patients had grade I disease, 37 (48.7%) grade II, and 32 (42.1%) had grade III. Among those with recurrence, five (41.6%) had grade II, and seven (58.3%) grade III. Forty-seven (61.8%) had large cell nonkeratinizing tumor, 27 (35.5%) large cell keratinizing and two (2.6%) small cell. In the recurrence patients, eight (66.7%) had large cell nonkeratinizing, three (25%) large cell keratinizing and one (8.3%) small cell tumors.

Twelve (15.8%) of the 76 patients had metastases to pelvic nodes. Five (41.7%) of these patients had recurrence. Of the 64 patients with no nodal involvement, seven (10.9%) had recurrence.

No patients in the study had involvement of the margins of resection with tumor.

Eleven patients received adjuvant radiation therapy, ten of the 12 with positive nodes and one for deep stromal invasion. Of the ten patients with positive pelvic nodes who were radiated, three (30%) had recurrence.

Fifteen (18.4%) of the pathologic specimens were found to have vascular space involvement. Of these, two (13.3%) were from patients who later developed recurrent disease. Ten (16.3%) patients of the 61 with no vascular space involvement had recurrence.

Twelve (15.7%) patients had peripheral eosinophilia and three (25%) of these had recurrence, as compared to nine (14%) recurrences in the 61 patients with no eosinophilia. Fourteen (18.4%) exhibited stromal eosinophilia, and three (21.4%) had recurrence. Nine (14.5%) of 62 patients without stromal eosinophilia developed recurrent disease.

We were able to perform a mucin test on 35 specimens. Eleven (31.4%) were positive. Three (27.3%) of these had recurrence, compared to three (12.5%) recurrences in the 24 mucin negative patients.

Twenty-one (27.3%) patients had tumors greater than or equal to 4 cm in size. Eight (38.1%) recurred. There were four (7.3%) recurrences in the 55 patients whose tumors were less than 4 cm in diameter. There were no recurrences in patients with tumors less than 3 cm.

Twenty-eight (36.7%) had stromal invasion greater than 10 mm. Nine (32.2%) recurred. Three (6.3%) of the 48 patients with 10 mm or less stromal invasion had recurrences.

Statistical analysis by tests listed under materials and methods revealed that in this group of 76 patients, age, race, tumor grade, tumor type, vascular space involvement, peripheral or stromal eosinophilia, and positive mucin stain were not significant risk factors for recurrence.

Tumor size ($p = .0107$), depth of stromal invasion ($p = .0006$), remaining disease-free stroma ($p = .0231$), and nodal involvement ($p = .0436$) were significant prognostic variables. Stepwise discriminate analysis revealed that nodal status depended on depth of stromal invasion ($p = .0001$) and that depth of stromal invasion was the most important variable.

Discussion • Age, tumor grade and type, vascular space involvement, and both kinds of eosinophilia have been found to have varying importance as prognosticators of recurrence. Reports in the literature are in disagreement as to their significance. Definitive answers will have to wait publication of ongoing cooperative studies.

Mucin stain of what appears to be otherwise "pure" squamous lesions has not been extensively examined. Adenosquamous tumors tend to behave more aggressively. Therefore the question arises whether or not positively staining squamous tumors will be "bad actors." In the small group of patients within the larger series of this report, this was not the case. Larger studies may lead to different conclusions.

In recent reports the importance of depth of stromal invasion has been elucidated. What still needs to be defined is the role of adjuvant therapy under specific risk criteria. In endometrial malignancy it has been shown that depth of myometrial invasion is the most important single factor for recurrence even if pelvic and paraaortic nodes are free of metastases. Adjuvant radiation in such cases of endometrial cancer is an accepted treatment.

In cervical disease Gauthier et al[10] in a series of 100 patients with squamous cell cancer confirmed that depth of stromal invasion was the most important variable, and were then able to identify low, intermediate, and high risk groups for recurrence based on depth of stromal invasion and lesion size. In the low risk group five year survival was 97% while in the high risk group it was 31%.

In 1980, Albrehayaghu[1] et al in a series of 35 patients identified six who had outer 1/3 stromal invasion, grade III histology, and no nodal metastases. Three of these patients were radiated postradical hysterectomy and were subsequently free of disease.

Of the three that received no adjuvant therapy two had recurrence.

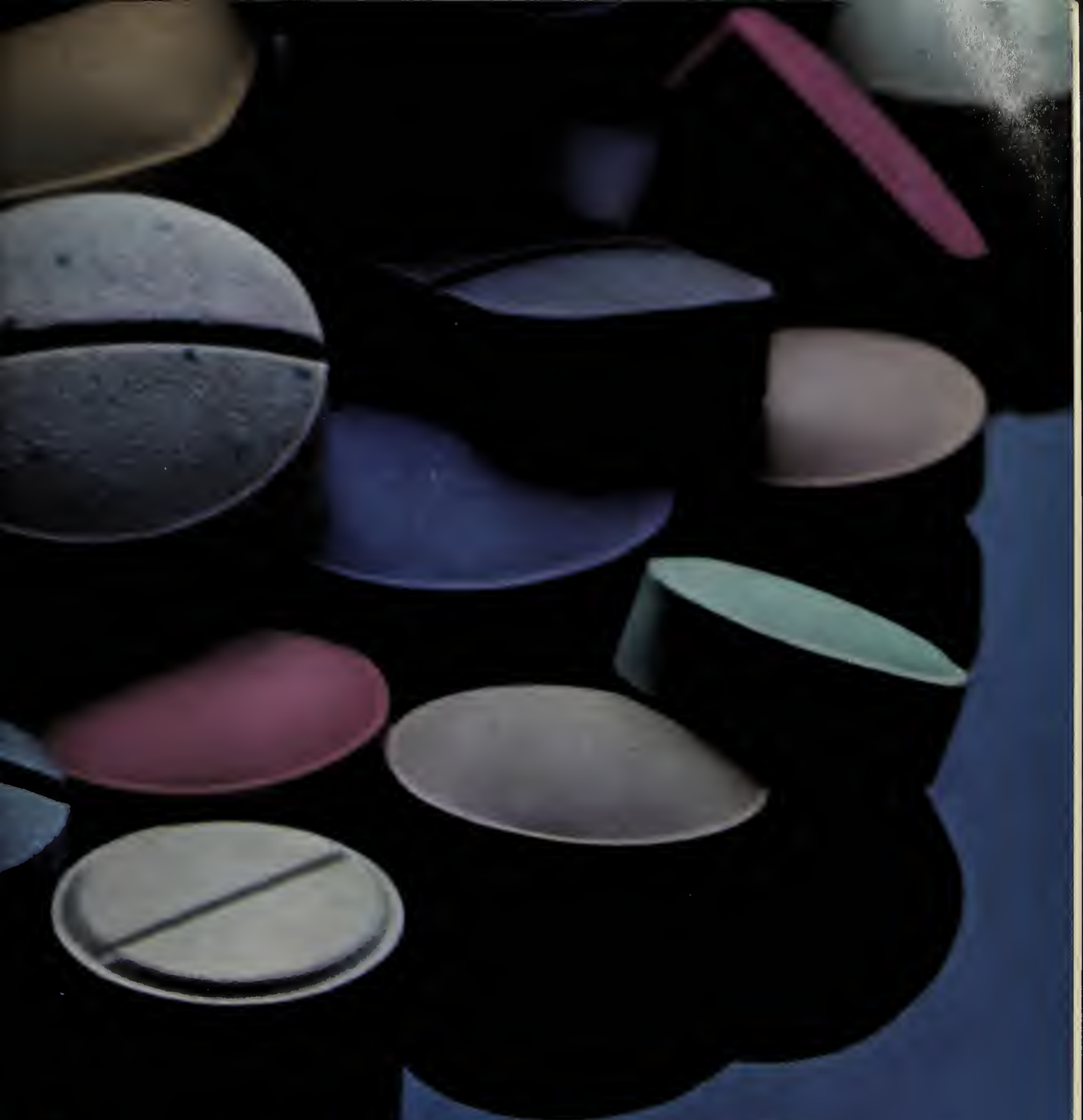
In our series, of the 12 recurrences in 76 cases, seven occurred in patients who had no nodal metastases and no involvement of specimen margins with cancer. None of these patients were radiated. Six of the seven had local recurrences. If Gauthier's criteria were used on these patients, five would have been in the high risk group and two in the intermediate risk group. The unanswerable question is whether the recurrence rate in the group of seven patients would have been significantly lowered if any or all of them had been radiated.

A large cooperative study is needed to clearly define the role, if any, of adjuvant therapy in patients with certain histologic risk factors. Part of the answers may emerge from the recently completed surgical-pathological study of the Gynecologic Oncology Group. However, a more detailed study may be needed. All specimens would need to be sectioned in such a way that depth of stromal invasion as well as percent of stromal penetration could be accurately measured. Using a multifactorial analysis the risk of recurrence at certain depths of invasion, when other histologic criteria are present or absent, could then be determined. For example, in our study such analysis showed that at 11.5 mm invasion there was a 25% chance of recurrence, and at 17.9 mm the risk was 50%. However, the series was too small for 95% confidence limit. Once the relative risks are determined in a cooperative study, then randomization can be carried out, and hopefully the role of adjuvant therapy defined.

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- Dr. Nuss, Director, Division of Gynecologic Oncology, University Hospital of Jacksonville, 655 West Eighth Street, Jacksonville 32209.



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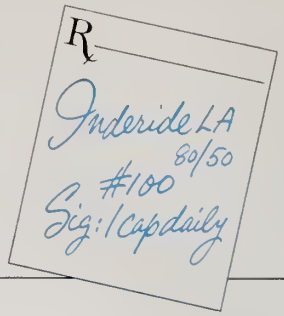
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CONTRAINDICATIONS

Propranolol hydrochloride (INDERAL®):
Propranolol is contraindicated in 1) cardiogenic shock, 2) sinus bradycardia and greater than first degree block, 3) bronchial asthma, 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with propranolol.

Hydrochlorothiazide:
Hydrochlorothiazide is contraindicated in patients with anuria or hypersensitivity to this or other sulfonamide-derived drugs.

WARNINGS

Propranolol hydrochloride (INDERAL®):
CARDIAC FAILURE. Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure. Although beta blockers should be avoided in overt congestive heart failure, if necessary, they can be used with close follow-up in patients with a history of failure who are well compensated and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics, and the response observed closely; or propranolol should be discontinued (gradually, if possible).

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuance of propranolol therapy. Therefore, when discontinuance of propranolol is planned, the dosage should be gradually reduced and the patient carefully monitored. In addition, when propranolol is prescribed for angina pectoris, the patients should be cautioned against interruption or cessation of therapy without the physician's advice. If propranolol therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute propranolol therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

THYROTOXICOSIS. Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol does not distort thyroid function tests.

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranolol.

MAJOR SURGERY. The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

Nonallergic Bronchospasm (eg, chronic bronchitis, emphysema)—PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD, IN GENERAL, NOT RECEIVE BETA BLOCKERS. INDERAL should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

DIABETES AND HYPOGLYCEMIA. Beta-adrenergic blockade may prevent the appearance of certain premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia in labile insulin-dependent diabetes. In these patients, it may be more difficult to adjust the dosage of insulin. Hypoglycemic attacks may be accompanied by a precipitous elevation of blood pressure.

Hydrochlorothiazide:
Thiazides should be used with caution in severe renal disease. In patients with renal disease, thiazides may precipitate azotemia. In patients with impaired renal function, cumulative effects of the drug may develop.

Thiazides should also be used with caution in patients with impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate hepatic coma.

Thiazides may add to or potentiate the action of other antihypertensive drugs. Potentiation occurs with ganglionic or peripheral adrenergic-blocking drugs.

Sensitivity reactions may occur in patients with a history of allergy or bronchial asthma.

The possibility of exacerbation or activation of systemic lupus erythematosus has been reported.

PRECAUTIONS

Propranolol hydrochloride (INDERAL®):
GENERAL. Propranolol should be used with caution in patients with impaired hepatic or renal function. Propranolol is not indicated for the treatment of hypertensive emergencies.

Beta-adrenoreceptor blockade can cause reduction of intraocular pressure. Patients should be told that propranolol may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

CLINICAL LABORATORY TESTS. Elevated blood urea levels in patients with severe heart disease; elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

DRUG INTERACTIONS. Patients receiving catecholamine-depleting drugs, such as reserpine, should be closely observed if propranolol is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity, which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

CARCINOGENESIS, MUTAGENESIS, IMPAIRMENT OF FERTILITY. Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

PREGNANCY. Pregnancy Category C. Propranolol has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximal recommended human dose. There are no adequate and well-controlled studies in pregnant women. Propranolol should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

NURSING MOTHERS. Propranolol is excreted in human milk. Caution should be exercised when propranolol is administered to a nursing mother.

PEDIATRIC USE. Safety and effectiveness in children have not been established.

Hydrochlorothiazide:
GENERAL. Periodic determination of serum electrolytes to detect possible electrolyte imbalance should be performed at appropriate intervals.

All patients receiving thiazide therapy should be observed for clinical signs of fluid or electrolyte imbalance: namely, Hyponatremia, hypochloremic alkalosis, and hypokalemia. Serum and urine electrolyte determinations are particularly important when the patient is vomiting excessively or receiving parenteral fluids. Medication such as digitalis may also influence serum electrolytes. Warning signs, irrespective of cause, are: Dryness of mouth, thirst, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular fatigue, hypotension, oliguria, tachycardia, and gastrointestinal disturbances such as nausea and vomiting.

Hypokalemia may develop, especially with brisk diuresis, when severe cirrhosis is present, or during concomitant use of corticosteroids or ACTH.

Interference with adequate oral electrolyte intake will also contribute to hypokalemia. Hypokalemia can sensitize or exaggerate the response of the heart to the toxic effect of digitalis (eg, increased ventricular irritability). Hypokalemia may be avoided or treated by use of potassium supplements, such as foods with a high potassium content.

Any chloride deficit is generally mild and usually does not require specific treatment, except under extraordinary circumstances (as in liver or renal disease). Dilutional hyponatremia may occur in edematous patients in hot weather; appropriate therapy is water restriction, rather than administration of salt, except in rare instances when the hyponatremia is life-threatening. In actual salt depletion, appropriate replacement is the therapy of choice.

Hyperuricemia may occur or frank gout may be precipitated in certain patients receiving thiazide therapy.

Insulin requirements in diabetic patients may be increased, decreased, or unchanged. Diabetes mellitus which has been latent may become manifest during thiazide administration.

If progressive renal impairment becomes evident, consider withholding or discontinuing diuretic therapy.

Thiazides may decrease serum PBI levels without signs of thyroid disturbance.

Calcium excretion is decreased by thiazides. Pathologic changes in the parathyroid gland with hypercalcemia and hypophosphatemia have been observed in a few patients on prolonged thiazide therapy. The common complications of hyperparathyroidism, such as renal lithiasis, bone resorption, and peptic ulceration, have not been seen. Thiazides should be discontinued before carrying out tests for parathyroid function.

DRUG INTERACTIONS. Thiazide drugs may increase the responsiveness to tubocurarine. The antihypertensive effects of thiazides may be enhanced in the postsympathectomy patient. Thiazides may decrease arterial responsiveness to norepinephrine. This diminution is not sufficient to preclude effectiveness of the pressor agent for therapeutic use.

PREGNANCY. Pregnancy Category C. Thiazides cross the placental barrier and appear in cord blood. The use of thiazides in pregnancy requires that the anticipated benefit be weighed against possible hazards to the fetus. These hazards include fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult.

NURSING MOTHERS. Thiazides appear in human milk. If use of the drug is deemed essential, the patient should stop nursing.

PEDIATRIC USE. Safety and effectiveness in children have not been established.

ADVERSE REACTIONS

Propranolol hydrochloride (INDERAL®):
Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

Cardiovascular: Bradycardia, congestive heart failure, intensification of AV block, hypotension, paresthesia of hands, thrombocytopenic purpura, arterial insufficiency, usually of the Raynaud type.

Central Nervous System: Lightheadedness, mental depression manifested by insomnia, lassitude, weakness, fatigue, reversible mental depression progressing to catatonia, visual disturbances, hallucinations, an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics.

Gastrointestinal: Nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

Allergic: Pharyngitis and agranulocytosis, erythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress.

Respiratory: Bronchospasm.

Hematologic: Agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

Auto-immune: In extremely rare instances, systemic lupus erythematosus has been reported.

Miscellaneous: Alopecia, LE-like reactions, psoriasiform rashes, dry eyes, male impotence, and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes, and conjunctivae reported for a beta blocker (practolol) have not been associated with propranolol.

Hydrochlorothiazide:
Gastrointestinal: Anorexia, gastric irritation, nausea, vomiting, cramping, diarrhea, constipation, jaundice (intrahepatic cholestatic jaundice), pancreatitis, sialadenitis.

Central Nervous System: Dizziness, vertigo, paresthesias, headache, xanthopsia.

Hematologic: Leukopenia, agranulocytosis, thrombocytopenia, aplastic anemia.

Cardiovascular: Orthostatic hypotension (may be aggravated by alcohol, barbiturates, or narcotics).

Hypersensitivity: Purpura, photosensitivity, rash, urticaria, necrotizing angiitis (vasculitis, cutaneous vasculitis), fever, respiratory distress, including pneumonitis, anaphylactic reactions.

Other: Hyperglycemia, glycosuria, hyperuricemia, muscle spasm, weakness, restlessness, transient blurred vision.

Whenever adverse reactions are moderate or severe, thiazide dosage should be reduced or therapy withdrawn.

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SPECIAL ARTICLE

Hospital medical staffs: the future is now

Thomas M. Daniel, M.D. and Robert W. Seligson

"These are times in which a genius would wish to live. It is not in the still calm of life that great challenges are formed. . . Great necessities call out great virtues." (Abigail to John Quincy Adams, 1780).

Organized medicine faces one of the most challenging periods in its history. Just as the medical milieu of 1910 prompted the Flexner report and the subsequent changes in the course of medical education, the medical milieu of the 1980's challenges organized medicine to re-examine the methods and delivery of medical care in this country. The environment is more dynamic and pressures for change are prevalent: increasing social demands, advancing technological capabilities, excessive levels of expectation demanding unerring excellence, entry onto the scene of medical entrepreneurs of entirely different definition, increasing groups and people in the medical delivery force pushing for equal professional recognition (and compensation) — all struggling for attention against a backdrop of an economy unable and unwilling to continue to commit increasing resources to meet their demands. As a result, new players have elbowed their way onto the stage: government and regulatory agencies and their hangers-on, industrial corporations and their benefit managers, HMO's, PPO's, IPA's, home health services, ambulatory care centers, and multihospital systems with sophisticated marketing techniques designed either as nonprofit organizations earning "surpluses" or for-profit organizations earning returns for stockholders.

Unfortunately their concerns center mainly on DOLLARS — their numbers, their sources, and their distribution. Since most of these dollars are spent on physicians and hospitals, these new players have forcefully interjected themselves into the interrelationship of these traditional allies and brought about increasing tensions. It is the management of the sometimes tumultuous results that has challenged the genius of organized medicine and been instrumental in a new emphasis on medical staffs and a reconfirmation, restatement, and even redefinition of medical staff organization, responsibility and function. Medical staffs being the composite of those practitioners involved, the direction of this new thrust will be greatly dependent on the knowledge, understanding, and participating cooperation of the individual physician.

Factors and effects • To understand the players and their actions, one must take into account the characteristics of our changing medical environment.

There has been an increase in the number of practicing physicians that will continue through the 1980's. In 1971 there were 152 physicians per 100,000 population compared with 194 physicians per 100,000 population in 1980. In 1969, there were approximately 6,300 medical group practices. By 1980, the

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number had increased to over 10,800 with some 88,300 physicians practicing in group settings.[1] As the number of physicians increases, there is greater competition for patients and hospital staff positions. Boards are being pressured to close staffs. The Florida Hospital Association reports that in a July 1985 survey, 14% of responding hospitals have partially or entirely closed staffs, with two-thirds of those being permanently closed.

During the past decade there has been substantial growth in multi-hospital systems and for-profit hospitals. Florida is leading the way: among general hospitals there are currently 88 for-profit vs. 84 not-for-profit (some of which are managed by corporate chains), 45 state or local government and 42 specialty hospitals (some of which are proprietary). The 1985 *Directory of Proprietary Hospitals* lists 125 owned or managed hospitals in Florida (with an additional 23 to come on-line in 1985). Armed with better capital, they are now venturing into teaching and research, health insurance, and prepaid medical care plans. Some medical staffs are chafing under the increased power vested in their executives and boards over medical staff officers and functions as well as over individual physicians, including their practices and privileges. Because of capital advantage and the benefits of group purchasing savings, their ability to reduce losses by eliminating low volume services[9] and "tight ship" management, their growth trends may well continue, though on a statewide basis total numbers of hospitals will remain the same. Consolidation and change in management and/or ownership will substitute for construction. The threat to community and local government hospitals (and those physicians preferring that functional environment) is obvious.

More physicians are entering full-time, part-time, or negotiated contractual relationships with hospitals and alternate health care providers. In a survey conducted by the AMA in 1981, 191,000 physicians indicated they had contracts with hospitals or other health care facilities.[3] Many otherwise "private" practitioners have contractual relationships with hospitals through such things as EKG reading groups and managers of in-hospital programs (respiratory therapy, rehabilitation programs, utilization review, etc.). Frequently entered into for protection of income and patient base, contracts expose physicians to control by the contracting entities through economic pressure. The tools? Utilization review, management information systems, disallowances, contract renewal, and "compliance" with regulating entities (including JCAH) among others. Organized medicine has begun to address contractual relationships, providing information regarding contract options when negotiating with hospitals and others[14] and taking the position that such relationships should be "mutually agreeable, fair to parties involved, promote the interests of patients, and support the provision of high quality care and services."[3]

In many circumstances, physicians groups are considering "joint ventures" with hospitals and other organizations in delivering health care or participating in health related endeavors. These may take the form of simple contractual relationships, partnerships, or creation of corporate entities, but most have as their purpose pooling of capital, expertise, knowledge, and property resources for the purpose of engaging in a profit-making enterprise under joint control of the parties. They are so numerous and varied in type as to almost defy definition and have led to frustrations in attempts to develop guidelines for the ethical involvement of physicians.[15]

Reduction in funding from Federal and State government will eventually reduce hospital revenue significantly from inpatient sources. This will result in budgetary and equipment squeezes unfamiliar to most medical staffs in recent years.

Because of their economic structure, some hospitals are resistant to assume a large load of indigent patients, forcing them through the doors of those who by law or community commitment must accept such patients. Not only does this strain consciences in community hospital boardrooms and threaten increased tax burdens on a weary society, but some physicians are required to accept a larger share of these patients (and the economic losses) because of their affiliations.

Physicians, more accustomed to medical intellectual pursuits, are being coerced into traveling through the unaccustomed avenues (and alleys) of "market shares", "competitive pricing", "networking", "cost-effectiveness", "management information systems", and all the other concerns more familiar to business jounals than medical journals. They are being guided through this unfamiliar terrain by hospitals which need their assistance in the hospitals' quest for survival in a highly competitive horse race for house patients.

Physicians are entering in increasing numbers territory once reserved for hospitals — cataract centers, outpatient surgery centers, plastic surgery centers, and expanded office-based laboratory facilities. Hospitals, in turn, are encroaching on traditional physician-service areas — outpatient diagnostic centers, outpatient clinics, walk-in clinics, ambulatory care centers, alcohol and substance abuse programs. Hospitals gain the edge in this joust with huge advertising budgets and marketing expertise.

There is a predicted reversal of the former 60% — 40% split of the health care dollar in favor of the hospital to a future 40% — 60% split in favor of the physicians. Unfortunate for both, however, is the predicted overall decrease in health care dollars

which nullifies the physician's advantage and complicates the hospital's loss.

Hospital failures are predicted and have already begun. Each sinking hospital sets afloat another medical staff into the competitive sea.

Health care cost containment — one of the prime legislative issues on both the state and national level — threatens to adversely affect the type of care rendered in and out of the hospital. Physicians are deeply concerned over their ability to continue to deliver high quality care, and are worried events may turn as they have in Great Britain where decision making is frequently based on resource constrains rather than medical criteria.[6] British per capita daily expenditures of $173.96 vs. U.S. expenditures of $327.33[7] are bound to appear attractive to legislators facing the predictions of continuing escalation of costs because of technological advances and an increasingly aging population. As in Britain, rationing almost certainly will occur to some degree as government reduces reimbursement. Society and economic pressures will make the decision, but patients and physicians will be saddled with the results and the blame.

Major corporations are becoming more involved in directing health care cost containment and are participating in business health coalitions to address the issue. *U.S. New and World Report* reports that approximately 60% of the nation's top 500 companies have changed health benefits to encourage employees to shop around for the most cost-effective medical care;[4] in Chicago, employers include in employees pay envelopes "hit lists" of higher fee physicians to avoid!

Physicians have begun to look at their hospital differently. In an AMA survey, physicians identified the following as major hospital issues: (1) lack of medical staff voice in hospital planning and in hospital governing decisions, (2) effect of change in hospital ownership on medical staff, (3) competition between hospital ambulatory services and office based practices, (4) hospital diversification into other profit-making activities, (5) closed medical staff arrangement and/or exclusive contracts, (6) interpreting and complying with JCAH standards, (7) role of the non-physician health care provider in the hospital, (8) inter-specialty jurisdiction in privilege delineation, and (9) hospital cost-containment.

Physicians, more aware of the necessity for protection of their position in the hospital, are clamoring for membership on hospital boards and committees, exerting pressure on their own leaership to push for increasing positions of power.

The latest "attraction" on the medical liability marquee features increasing difficulty in obtaining coverage by physicians and hospitals alike. Relationships are strained as some physicians want to "go bare" while hospitals and their insurance carriers are not only demanding coverage as a condition of staff membership (now enacted into law in Florida) but in the view of most physicians and organized medicine groups are excessive in those demands.

The response • Physicians are attempting to return to a more authoritative role. Just as toward the end of the 19th century the profession became more cohesive as a result of scientific advancement and change in social structure (more dependent on one another for referrals and access to facilities), it is finding again that greater cohesiveness strengthens professional authority.[16] In a nationwide survey conducted by Northwestern University, a growing physician involvement in hospital management was indicated. The percentage of hospitals with physicians as voting members of their governing boards increased from 68% to 98% from 1972 to 1981. The survey also indicated that in 1981, 31% of hospitals surveyed had medical staff members on long-range planning committees. This clearly represents a renewed interest in participation in the formation of hospital policy.

Organized medicine is recognizing this need for greater involvment and cohesiveness. The AMA in 1981, after studying the relationship with hospitals and other health care facilities, established a special section to meet the peculiar needs of hospital medical staffs. The AMA Hospital Medical Staff Section meets bi-annually in conjunction with the AMA annual and interim meetings. The goals which have been established are: (1) to provide a forum for hospital medical staffs to meet nationally to discuss common issues and concerns, (2) to increase awareness of issues that are affecting physicians as members of medical staffs, (3) to ensure bi-directional communication between the AMA and medical staffs, and (4) to provide an avenue for direct access to the policymaking body of the AMA.

Subsequent to, and as a result of the development of the AMA Hospital Medical Staff Section, the Florida Medical Association Board of Governors created an ad hoc committee on March 1, 1984 to assess methods to establish medical staff representation within the structure of the FMA, with careful emphasis on including county medical societies in the process. This committee identified two major goals: to provide a forum for hospital medical staffs to meet on a statewide basis to discuss common issues and concerns, and to provide an avenue for direct access into the policymaking body of the FMA.

As a result, the FMA House of Delegates in 1984 adopted an amendment to the FMA Bylaws to provide for the creation of a Council on Hospital Medical Staffs composed of eight representatives (nominated by the county medical societies and representing equally the four medical districts) ap-

pointed by the Board of Governors, with the Council Chairman appointed by the President. The Council is given a representative and a vote in the House of Delegates in order to give it direct access to that body.

The Bylaws require the Council to hold two statewide meetings yearly to which a representative from each hospital medical staff in the state and the chairman of the county committee on Hospital Medical Staffs (which county medical societies have been asked to form) are encouraged to attend. These representatives are given "delegate" status which provides them with the privilege of the floor to introduce and discuss issues of common concern. The Council has begun to publish a quarterly newsletter, reporting its activity, and containing information of interest to medical staffs, which is disseminated to all chiefs of staff and county medical societies.

This extensive network ensures adequate opportunity for representation of medical staffs as an entity to organized medicine to study and address the problems of today. Obviously there is the danger of "excessive levels of expectation" but to date the enthusiastic cooperation of the House of Delegates, Board of Governors and staff has led to some impressive successes.

Time for involvment • What does all this tell us? It tells us that now is the time to get educated, get involved, and provide physician input to ensure that changes in the method of delivery of hospital care do not adversely affect the quality of care that is rendered. With predictions that hospitals will continue to gain control over the practice of medicine,[12] physicians must establish good working relationships with hospital administrators and governing boards with mutual respect for each other's roles. Working together in a united effort will allow individual physicians and organized medicine to help mold the rapidly changing system and ensure that physicians still have the power to be the advocate of the patient and provide the type and quality of care the patient deserves and has come to expect of the physicians of Florida.

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Health Maintenance Organizations and the Medicare program

Lee A. Fischer, M.D.

On January 10, 1985, the Department of Health and Human Services published final regulations expanding health maintenance organizations (HMOs) to Medicare patients on a nationwide basis. Over the past two years, 21 demonstration projects have been enrolling Medicare recipients, the majority in south Florida. This article discusses our experience since the HMOs expanded into our county and what physicians across the nation can expect in the near future.

In December 1984, a few weeks prior to the January 1, 1984 start-up date, doctors and patients in Palm Beach County, Florida, were greeted with newspaper and television advertisements urging Medicare recipients to enroll in HMOs. As the concept of HMOs was new to our area, the ads explained that patients would receive free hospitalization, free doctors visits, free prescriptions, free eyeglasses, free hearing aides, and more with no premium, deductible, or coinsurance. All that was required to end one's worries over high medical bills was a valid Medicare card and a signature.

HMO demonstration projects had been operating in Dade and Broward counties (Miami and Ft. Lauderdale) for some time, but were slated to begin operation in Palm Beach County on January 1, 1984. For three weeks leading up to that date and for many weeks thereafter, expensive, double-page ads appeared in the newspaper touting this wonderful, new Medicare benefit. Local radio programs extolled the miracle of government-backed HMOs. Actor Glenn Ford followed later by Barbara Mandrell and George Burns appeared in TV commercials urging Medicare recipients to "get all the facts. I did." Television news dutifully recorded long lines of elderly people waiting literally in rain or shine for up to three hours for the privilege of enrolling. Local promoters publicly gloated that now they and their Medicare enrollees were going to get back at private practice physicians for all the years of abuse they had suffered. Not only doctors but also many responsible senior citizens became concerned about the propaganda blitz paid for with federal dollars.

Public awareness campaign • A few weeks of costly advertising by the HMOs was enough to convince most of us that the public was getting a one-sided view. With the support of members, the Palm Beach County Medical Society embarked on a public awareness campaign to counter the claims made by the HMOs. We used the professional expertise of a local public relations firm to put our program together, and after many meetings our campaign began, involving newspaper ads, radio spots and public speaking. The success we achieved was directly related to the professional help and guidance we received.

In late January we appeared on our "Call the Doctor" weekly TV show and explained some of the facts that we felt Medicare recipients should consider prior to joining an HMO. A few weeks later our first full-page newspaper ad ran in the Sunday edition. It urged people to get all the facts before joining an HMO, including the fact that their choice of

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physician and hospital was severely limited. Because many residents of our area spend long periods up north in the summer, we pointed out that only "emergency" and "urgently needed" care would be covered by the HMO while they were away from the area. Prospective enrollees were urged to ask the HMO to define these terms. Because many HMO centers refused to list the names of the doctors working for them, we urged people to ask for the doctors' names, medical society membership and hospital affiliation (if any), and board certification. After all, no matter who owns or runs an HMO, only licensed physicians can actually practice medicine. We provided a list of other essential questions people should ask.

The radio spots ran on two AM talk radio stations. They were short sketches depicting potential problems enrollees might encounter in an HMO. For example, a lady discussed how she would not be going to her summer home up north this year because she had enrolled in an HMO and was afraid that if she got sick she could only be treated in an emergency. She did not want to take the chance of getting sick and finding out later that the HMO would not authorize or pay for her care.

Over a ten-week period our newspaper and radio spots focused attention on the fact that all glitters is not gold. Once people realized that the decision to join an HMO was at least controversial, they began to seek more information. That is where our public speaking program proved highly successful. Medical society members spoke before more than 2,000 people in the six months after the HMOs began in our county. The meetings varied in size from groups of 20 to over 300. Some sessions presented only our side while others were quasidebates with the HMO viewpoint presented by a local HMO representative. It was interesting to see how the groups' attitudes changed over time. At first many questions were directed at us, obviously skeptical of our involvement. The usual comment was that doctors were opposing HMOs because they were losing patients to them. A few months later, however, skeptical questions were being directed at the HMO representative. As enrollees began to have problems, they told their neighbors, and word spreads fast in a retirement community. Many people found themselves enrolled without their knowledge. Others were unable to disenroll and return to the regular Medicare program even after five months of trying due to bureaucratic bungling. In some cases the quality and continuity of care was not what patients had expected. After the early rush to enroll, thousands began to disenroll.

Public's problems and complaints • Much has happened since our public awareness campaign ended in June 1984. Over the past year our medical society received numerous complaints from patients who had problems with local HMOs, and these complaints were forwarded to the appropriate authorities. In July 1984 our congressman held a field hearing of the House Select Committee on Aging and heard testimony from consumers, HMO operators and medical society representatives. We documented numerous problems and complaints and presented them in our public testimony to the committee. The complaints fell into five areas; enrollment tactics, disenrollment problems, continuity of care, quality of care, and resolution of patient problems. A few representative examples will illustrate these problem areas.

Many people complained about the enrollment tactics employed by the HMOs. Numerous reports were received from people who sent in a request for further information only to find out they were subsequently enrolled without their knowledge. An HMO set up a table outside a local giveaway of government surplus cheese to indigents and enrolled individuals who were asked if they wanted a free pair of eyeglasses and some free medicine. One gentleman did not even sign his own name and was not given any material concerning benefits or information as to the center to which he was assigned. Others were enrolled by HMO employees going door to door in retirement communities. Many people first discovered that they were enrolled after submitting a claim to Medicare which was denied. The initial goal seemed to be enroll as many people as possible and worry about delivering medical care later.

If enrollment was sometimes too easy, disenrollment could be extremely difficult. The standard HMO line is that one can disenroll and be back on regular Medicare in two to six weeks. In reality many enrollees waited up to six months. People who live up north part of the year were encouraged to disenroll four weeks prior to their departure and get back on regular Medicare, and then to reenroll in the HMO upon their return later in the year. One gentleman who testified at the federal hearing enrolled on December 6, decided to disenroll on December 9, and finally got back on Medicare May 1, 1984, although he had written numerous letters, made numerous phone calls and traveled to the HMO home office 60 miles away in an effort to disenroll. Others received notification from the HMO that they would be back on regular Medicare by a certain date only to find out later that the computer still showed them enrolled in the HMO. In many cases the patient was caught in the middle not knowing who was responsible for paying the bills. A recently released report by the United States General Accounting Office (GAO) found this area to be a major concern and urged the Department of Health and Human Services to correct these problems immediately.

Continuity of care is a necessity when caring for the Medicare population, many of whom suffer chronic illnesses. Continuity of care has been found sorely lacking in some of HMOs in Palm Beach County. A number of the HMO centers are free-standing emergency clinics that employ physicians on an hourly or part-time basis. The doctor there today will not necessarily be the one there tomorrow, leading to a lack of continuous, ongoing care in a most vulnerable population group. Some HMO doctors are semiretired and return north for the entire summer. Many HMO physicians have no hospital privileges and thus must rely on private physicians on call for the emergency room to care for HMO patients when they need to be hospitalized. This fragmentation of the patient's medical care can have serious consequences.

The quality of medical care is a difficult area to evaluate. Because there is a financial incentive to deliberately underutilize services, there is great concern that in some cases the standard of care is different in HMOs than the standard of care that prevails in our community. Additionally much use is made of ancillary personnel to deliver medical care posing serious questions concerning their supervision.

Many people who could not resolve their problems with the HMO called and wrote our medical society because they had no where else to turn. As insurance plans, HMOs are regulated by the state Insurance Commissioner but his office tends to pass the buck to the Health Care Financing Administration (HCFA) which runs the Medicare program. The patient, of course, is caught in the middle. In our testimony to the Committee on Aging we presented problems ranging from people who simply were unsatisfied with the care they received to others who found themselves personally responsible for thousands of dollars in medical bills.

Measuring success • Measuring the success of a program such as ours is not easy, but while taping a TV show during July 1984 I realized how informative our program had been for senior citizens. The show was a question and answer panel discussion on HMOs, but the TV station also videotaped local man-in-the-street interviews with senior citizens and asked them a number of questions about HMOs. Their answers sounded as if they were reading straight from our information. Prior to our campaign none of those people would have been able to answer as they did. At that point I knew we had accomplished our goal which was to insure that prospective enrollees had all the facts with which to make an informed decision. After listening to the comments on videotape it was obvious that our mission had been a complete success.

Not only was our campaign successful with the Medicare population but it succeeded in forcing the media and government agencies to recognize that problems did indeed exist. Recently the state Insurance Commissioner proposed legislation to strengthen the laws regulating HMOs. The first GAO report highly critical of HCFA's administration of the program has been released with another part of the report in progress. The Palm Beach County Medical Society submitted comments to HCFA on the proposed rules in July 1984 and was gratified to see that some important changes were made in the final rules implementing the program nationwide.

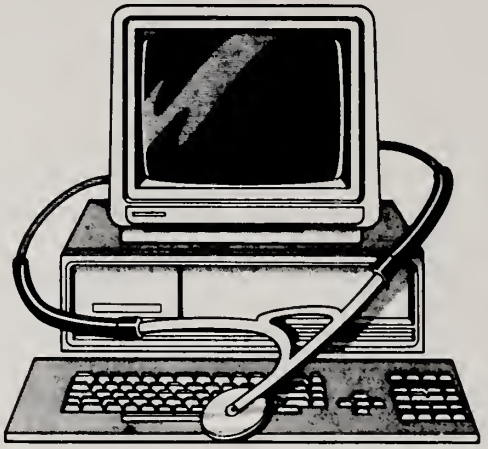
Are the problems we encountered in Florida with the HMO demonstration projects a preview of what will happen in the remainder of the country in the next year? On the basis of our experience we feel that nationwide implementation of Medicare HMOs is premature based on the problems we encountered and the fact that the evaluations commissioned by HCFA will not be ready for at least one year. Does anyone know the consequences of expanding this system across the country? Will senior citizens really receive quality medical care, or are HMOs just paying lip-service to the concept, while deliberately underutilizing services to maximize profit? Serious questions have been raised that demand truthful answers. Other county medical societies will most certainly be placed in the same position we were and it will be up to all concerned physicians to insure that quality health care is maintained. We urge each county society to be the patient's advocate and as the need arises to make the facts known to the public. The health and well-being of our senior citizens are too important to leave to chance.

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Inquisition of the Medicare physician reimbursement system

The successful imposition of Diagnosis Related Groups (DRGs) upon hospitals has enticed the federal bureaucracy to tinker with physician fee-for-service payments as an antidote to redress the hypothetical "crisis in physician fee escalation." I would like to inventory the warehouse of rationales for the reimbursement schemes now undergoing consideration.

Why change what works? • Most people, including President Reagan, assert that the American medical system is the finest ever devised.[1] Physicians defend the fee-for-service system as the propellant to the creation and maintenance of such excellence. Why, therefore, would an administration, which professes a credo of less government intervention, want to disfigure and maim the medical system with restrictive regulations? Their catalogue of reasons contains several arguments.

1. Fee-for-service reimbursement, based upon cost plus or Usual-Customary-Reasonable (UCR) fee schedules, is viewed as inflationary. Physicians are perceived as the economic beneficiaries of acclerated patient use of this system. Costs can be passed on to patients and through patients to the government because there are no economic modulators which can enkindle efficiency and tame over-utilization.[2]

2. Medical care is warped towards the use of high technology, specialists and procedural intervention which further exaggerates costs.

3. The system lacks uniformity in fee schedules. For instance, in 1980 the prevailing surgical fee for coronary bypass surgery was $5500 in urban Kentucky but $2500 in Kansas City, Kansas. The professional fee component for cardiac catheterization was $540 in Kansas City but $370 in Mobile, Alabama. A rapid perusal of prevailing charges by the Health Care Financing Administration (HCFA) reveals a multitude of such geographic distortions in charges.[3] The fee differences are not small.

4. Utilization rates for procedures differ from region to region or even from locale to locale in the same state.

5. Fiscal administrators for Medicare are fickle in adjudicating allowances for services. Amounts paid vary from month to month for the same procedure by the same physician for the same patient.

6. The conscientious physician who attempts to maintain fees at a low level is not only unrewarded but also is penalized by the current Medicare freeze.

7. Geographic maldistribution of physicians is aggravated since the system allures doctors to larger, more densely populated urban areas in which high technology, higher density of specialists and higher fees congregate.

Such inequities and dissonance of perception have permeated the Medicare system with confusion, uncertainty and injustice. All criticisms from patients, physicians, payers and government are justifiable to some extent. Excessive blame for Medicare's rising costs, however, is being attributed to doctors, when the physicians' portion of Medicare costs increased only 1% (from 21.4 to 22.4%) from 1975-1982[4] — hardly a quantum leap. During the decade of the 1970s, the cost of physician services rose only 1.7% (in constant 1979 dollars), and the percent increase in total fees paid to physicians was nearly identical to that for lawyers, accountants and engineers during the same decade. This small increment should be contrasted with the 20% increase in real, uninflated per capita income enjoyed by the rest of the American population during the same decade.[5]

Physicians also are blamed for the fact that medical care consumes 10.5% of the gross national product (GNP), but no percentage of GNP can be construed as proper or improper. Economic forces and demand for medical services (not government fiat) will determine the portion of GNP consumed by medical care.

People somehow misconstrue the utilization of high technology and specialists with the economic bedevilment of the medical system. They fail to adjust their intellectual bias to the coincident rise in patient longevity and the improvement in quality of life that has paralleled the surge in technology and specialization.

What are the alternative methods of reimbursing physicians? • Medicare is experimenting with prepaid capitation within the framework of Health Maintenance Organizations (HMOs). Budgetary directors favor capitation because it permits a precise estimate of the total cots of health services for a given population over a given period of time. Total capitation, however, is unlikely because it is unacceptable to physicians, will encourage shortening of time spent with patients, and will erode quality of and access to medical care.

Variations upon the capitation theme are several, and proposals for extending DRG-type reimbursement to physicians have been undergoing intense discussion since DRGs were successfully applied to hospitals. Extending the DRG concept to physician services, however, is tainted with multiple uncertainties and, since a physician DRG program has never been tried experimentally, there is no assurance that it would actually save Medicare any money. Also, it would be burdensome to administer, and there is no concensus as to who should disseminate the funds to the physicians involved in the care of a patient. Should the funds be given to the hospital, to the family physician, to the medical society, or to the local Medicare fiscal administrator? It has been hypothesised that money could be saved by making the family physician the gatekeeper. The family physician would be alloted a fixed sum to care for a patient with a given diagnosis and would disperse monies to pay for the services of consultants. In the only study in which the family physician served as gatekeeper, the gatekeeper system proved more expensive than traditional medical care, and the cost savings potential of such a system remains questionable.[6] Furthermore, endowing the family physician with most or all of the physician funds would encourage under-utilization of specialty services, threaten quality of care, and bring about an internecine conflict among providers. This would produce an "open season" for malpractice lawyers to parasitize the resulting chaos.

Additional questions have been posited. Should the DRG-type system be applied only to hospitalized patients, or should outpatient physician services by included? The unknowns which enshroud this have caused many health policy economists to retreat from recommending DRG-type reimbursement for physicians.

Some people have suggested that Medicare cost savings could be achieved by simplifying the payment system and bundling together groups of services. For instance, all office visits would be assigned one code and permitted one payment amount in spite of the complexity of the problem or length of the visit. Hospital visits and laboratory services similarly would be aggregated into one or very few "bundles." The myraid codes for surgical procedures which now exist would be abolished and replaced by a more streamline, leaner list of procedures.

Others have proposed the application of physician DRGs only to hospital-based physicians, such as pathologists, anesthesiologists and radiologists. This idea would reduce the administrative costs of Medicare by appending the physician payment to the hospital DRG payment. It is reasonably certain that hospital-based physicians will not embrace a system that is so prejudiced against them.

None of the above proposals assure economic savings, resolve the geographic maldistribution of physicians, assure quality of care or equalize access to medical care. They may reduce some of the distortions in fees paid to physicians for a given procedure, but they also may substitute other inequities. For example, care for the complex patient will be underpaid and, thus, the more severely ill patients will be abandoned and avoided.

Some of these proposals may permit the government to constrain the increase in cost of services by establishing a pre-set, maximum payment for a group of services. Some may remove the uncertainty regarding the amount of reimbursement that now exists. Also, it is assumed that the above proposals will reward efficiency by permitting the low-cost supplier of services to enjoy a larger profit than the currently-more-expensive supplier. Absent from all of these proposals is any concern for the quality of care or assurance of patient access to the system.

Many government folk would like to impress mandatory assignment on all Medicare providers. This may be applicable to certain surgical subspecialists who are generously remunerated for their services, but this would gravely burden the family physician whose fee is currently being reimbursed by Medicare at a rate of only 45 to 50%. Such a low rate of reimbursement for the family physician does not cover overhead costs, and it certainly does not reward him for his time, skills or investment which has been made toward his education or office equipment. Physicians cannot be expected to assume

society's obligations; thus, they will stop accepting Medicare patients, and these patients will be denied both access and quality care.

The AMA is hoping to divert the energies and dilute the frenzies engendered by DRGs and other reimbursement proposals by offering its alternative: national or regional fee schedules. The AMA and Harvard University recently applied for a grant from HCFA to research the feasibility of establishing a national relative value scale (RVS). The conversion factor used to translate the RVS into fees probably will have to be regionalized, but such a schedule would eliminate the vast discrepancies in fees for given services that now exist across the nation. It would remove reimbursement uncertainty for the patient, the physician and the government, and it would provide health care economists with firmer data to insert into their projections of physician costs. Potentially a RVS could help curtail excessive inflation in physician fee reimbursement and concurrently maintain the fee-for-service principle. If such a RVS had a clause allowing for economic inflation, it would be a satisfactory compromise for most physicians.[7]

Potential disadvantages to a national RVS system would include the following possibilities. (1) It could contain poorly-designed geographic costs differentials (in items such as rent and taxes) which may not be properly weighted and would not adequately compensate physicians who practice in high overhead areas. (2) The establishment of a national fee schedule would be a violation of antitrust law, and some legal means of circumventing this impediment would have to be found before such a system could be implemented. (3) Historically the Medicare bureaucracy has demonstrated that it is likely to impose discounts on the amount of any fee it will reimburse. Using history as our teacher, some form of balance building would have to be written into the system to keep Medicare fees aligned with other consumer services and commodities; otherwise, any new system would suffer from the same reibursement inequities which exist with the present system and the elderly again would be threatened with substandard care.

The present system of Medicare reimbursement is decrepit and has been likened to an old horse which humanely should be destroyed and dumped upon the trash heap of failed sociologic experiments. That analogy is unrealistically harsh. I would prefer to compare it to a musty, maderized, old Burgundy wine. Because it has passed beyond its prime, there is no reason to uproot the vines and burn the chateau. With forethought, care, experimentation and time one can always harvest a fresh crop and produce a more robust vintage.

Acknowledgment

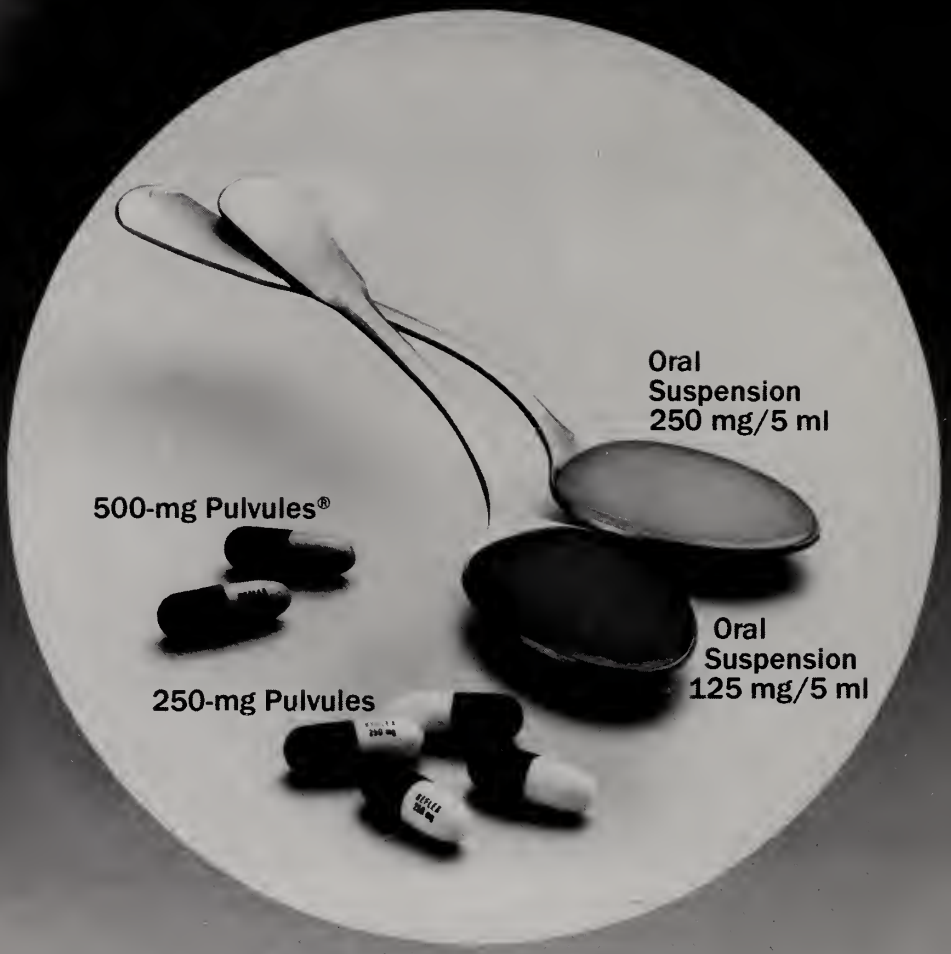
The author is particularly indebted to Drs. J. Hadley and M. Segal.

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☐ NOTES & NEWS

Suncoast gerontology center receives $150,000 grant

The Administration on Aging, a Federal agency, has awarded a $150,000 grant to USF's Suncoast Gerontology Center to conduct a 15-month project entitled "Training and Placing In-Home Respite Care Workers for Alzheimer's Patients."

Families who have the major care responsibilities for patients with Alzheimer's Disease experience physical, emotional and financial hardships in their roles as primary caregivers. The respite care training project is an attempt to offer affordable, specially trained workers in the homes of Alzheimer's patients to provide care while giving the family caregivers a respite from patient responsibilities.

The Suncoast Gerontology Center will conduct this training program in conjunction with the Working Seniors Program of Hillsborough County Aging Services, West Central Golden Services, and the Greater Tampa Chapter of the Alzheimer's Disease and Related Disorders Association. Persons interested in becoming trained Alzheimer's Disease respite care workers or families in need of such specially trained workers should contact Lillian Middleton, Project Director, at the USF Suncoast Gerontology Center (813-974-3100) or Jeanne Smith, Program Director of The Working Seniors Program, who will recruit and screen potential trainees.

The Alzheimer's Disease in-home respite training project is limited to Hillsborough County residents. Trainees will receive minimum wage during a four-week, 80-hour training period, after which they will be assisted in finding families in need of their skills at a pay rate to be negotiated between the respite care worker and the family in need of services.

The USF Suncoast Gerontology Center, directed by Eric Pfeiffer, M.D., offers information and assistance to families of Alzheimer's Disease patients through family support groups, specialized memory disorder evaluation clinics, family counseling and co-sponsorship of a specialized dementia adult day care program in Pinellas County.

Arthritis endowment by UF graduate Lewis Schott brings major boost to arthritis research

A million-dollar boost for arthritis research at the University of Florida College of Medicine comes with establishment of an Eminent Scholars Chair to which a UF alumnus has contributed half the funding.

University President Marshall Criser announced on August 23 that the generous $500,000 contribution of UF law graduate Lewis M. Schott of New York City provided an initiative which inspired other private donors to give an additional $100,000. The chair is now fully endowed, with the allocation of $400,000 in matching money from Florida's Eminent Scholar's Trust Fund.

The new faculty position is being named in honor of Lewis Schott's wife, Marcia Whitney Schott, a native of Jacksonville who graduated from UF's College of Law along with her husband in the class of 1946. The endowment becomes the 30th Eminent Scholars Chair to be committed at UF since state legislators established the matching trust program in 1979.

Criser also announced appointment this week of a search committee, headed by UF physician Dr. James G. McGuigan (chairman of the Department of Medicine) to recruit a world-class scientist to fill the position.

"Lewis Schott's expression of concern for this area of research, through his major contribution, will enable UF's Health Science Center to become a leader in the field of rheumatic disease," said Dr. William B. Deal, Dean of the College of Medicine. "Some 1.4 million Florida residents and more than 31 million Americans are afflicted with some form of this inflammatory disease which is a leading and costly cause of pain and disability," he said.

Dr. David R. Challoner, UF Vice President for Health Affairs, added, "Despite major advances in understanding rheumatic diseases and advances in our ability to treat symptoms, scientists still have not identified a means of cure or prevention. With the Schott chair, we can give far more attention to specific aspects of basic and clinical arthritis research," he said.

Schott, who is a native of Daytona Beach, directs a variety of business enterprises in New York City. He keeps close ties with Florida friends and family, including his mother, Mrs. Matilda Ferguson, who still resides in Daytona Beach.

Schott's affiliation with UF began more than 40 years ago when he earned his B.A. degree here in 1943 and three years later, graduated with honors from the College of Law. Over the years, he has continued to maintain contact with his alma mater and to express great interest and support for the university's programs.

Other major commitments for the chair came from Mr. and Mrs. M.M. Parrish of Gainesville, the Florida Chapter of Arthritis Foundation, headquartered in Bradenton, and Alfred A. McKethan of Brooksville.

The AMA Market Area Profile (MAP) Service

The American Medical Association has announced a new activity that will be of interest to any physician who is interested in developing or modifying a medical practice. The AMA Market Area Profile (MAP) Service, created as a part of the Association's Competition Action Plan, is designed to assist physicians in establishing and maintaining a successful medical practice by providing them with detailed demographic and health resource data on an existing or planned practice site.

The MAP Service offers physicians individualized, computer-generated data profiles on any area in the United States. Each Market Area Profile consists of six data reports:

- The Area Profile Report — 1980 census data (e.g. population, age, sex, housing, occupation, income, etc.) for the area that the physician has selected.
- The State Area Profile Report — 1980 census data for the state in which the physician-selected area is located, provided for comparison purposes.
- The Demographic Trends Report — 1980, current year, and five year projected population and demographic data (e.g. population, age, sex, household size, etc.).
- The State Demographic Trends Report — A Trends report for the state in which the selected area is located, provided for comparison purposes.
- The Physician Report — Statistical information on the number of physicians in the area, by medical specialty, age, and major professional activity.
- The Hospital Report — Detailed information on hospitals in the selected area, including: number of beds; admissions, utilization and census figures; facilities and services; and a profile of the medical staff. (If there are more than four hospitals in the selected area, a summary listing of the hospitals is provided instead.)

The information provided in a MAP profile can be beneficial to all physicians, no matter what their practice situation. New physicians will find it helpful in practice site selectin decisions, whether they are investigating specific practice opportunities or comparing several practice sites. Established physicians can use the profiles to make decisions about expanding, relocating or modifying an existing practice. For example, a physician might wish to use the MAP demographic reports to compare his current patient base with the potential patient population of the communty. Another physician might want to study the five year projected population figures as part of the development of a long range practice plan. In any event, the Market Area Profile Service is a valuable planning tool that can help any physician make the right decisions about a medical practice.

A key feature of the MAP Service is the flexibility offered to the physician subscriber in selecting the area to be profiled. There are four choices: (1) County, (2) ZIP Code, (3) City/Town, or (4) Ring Study. The Ring Study option is a unique aspect of the MAP Service that allows the physician to precisely define the area of study in relation to an existing or planned office site. Using a specific street intersection as the center point, the physician can define the area as a ring of any size (for example, five or ten miles) around that intersection. This is extremely useful in instances where a standard geographic description does not adequately describe a physician's service area.

The cost of the Market Area Profile Service ranges from $95 to $195, with substantial discounts for AMA members, medical students and residents. Along with the six profile reports, physicians receive a User's Manual that provides data source information and offers useful advice on how to interpret and apply the data to a practice situation.

For further information, and to receive the MAP Registration Package, please contact the AMA Market Area Profile Service, American Medical Association, 535 North Dearborn, Chicago, Illinois 60610, (312) 645-4719.

DEAN'S MESSAGE

Physician and patient

Editor's Note: Address delivered before Second Annual University of Miami School of Medicine, Student Council Student Convention, April 9, 1985

According to Norman Cousins, Thomas Mann, the great novelist, once began a lecture by saying that the most important thing he had to say was that he had nothing new to say. Let me add that this will hold true of my talk today which is based largely on the teachings of Norman Cousins, Francis Peabody, and Sir William Osler.

Peabody believed that one cannot become a skillful practitioner of medicine in the four or five years allotted to the medical curriculum. "Medicine is not a trade to be learned, but a profession to be entered. It is an ever widening field that requires continued study and prolonged experience in close contact with the sick." The novelist Eugene O'Neill stated that, "as long as you have a job on hand that absorbs all your mental energy, you haven't much worry to spare over other things. It serves as a suit of armor."

In his classical treatise, Peabody stated that the secret of the care of the patient was in caring for the patient. He stressed the importance of devoting time to the patient; "time to have little talks with him and time to know him as a man, his work and his play." Cousins has also emphasized the importance of devoting time to patients; "time to be heard, time to have things explained, time to be reassured." There is an old saying that, "it is much more important to know what sort of a patient has a disease than what sort of disease a patient has." (Quoted by Blumer).

In his famous address, "Aequanimitas", Sir William Osler pointed out the necessity of imperturbability on the part of the physician. The physician who has the misfortune to be without it, who betrays indecision and worry, who shows that he is flustered and flurried in ordinary circumstances loses the confidence of his patients.

The eminent Harvard physiologist, Walter Cannon, stated that a great service which the physician renders is that of bringing hope and good cheer to his patients. Eugene O'Neill stated that, "hope is the most powerful force on earth and the only thing that defeats death."

The ancient physicians were well aware that it is natural for the human body to heal itself, and that this process can take place without the intervention of a physician (vis medicatrix naturae). The late Franz Ingelfinger was emphatic that what patients need most of all is assurance that their own healing systems are beautifully designed to handle most of their complaints. He believed that 85% of patients the physician is called upon to treat have self-limiting illnesses and that the doctor's job is to distinguish between the 85% that really do not need his ministrations and the 15% that do.

Cousins has well stated that being able to diagnose correctly is a good test of medical competence, but being able to tell the patient what he or she has to know is a good test of medical artistry. Oliver Wendell Holmes believed that successful medical practice requires not lying but an ability by the physician to "round the sharp corners of truth." The truth can be told in a manner as to "lead the way to challenge or set the stage for shattering defeat" (Cousins).

It may be difficult to decide just what to tell the patient with an incurable disease. I recall the case of a prominent business executive and friend who was found to have an inoperable abdominal tumor. His wife had had an abdominal perineal resection for a rectal cancer and he told me that if he ever developed a cancer, he would kill himself. In addition, his wife had strongly insisted that I withhold the truth. Accordingly, I explained to him that he had a gastric ulcer invading his pancreas.

At that time, the late Dr. William Altemeier, who had operated on him, informed me that 5 hydrouracil was being introduced for the treatment of malignant tumors and that it was available in only two clinics: the Sloan Kettering Memorial Institute for Cancer and Allied Diseases and the University of Wisconsin. I chose the latter (to avoid the designation of cancer) and accompanied my patient to Madison where I was informed that he would have to be told the truth before they would institute treatment, and what did I want to do about it? I unhesitatingly gave them the green light. Instead of despairing, my patient mustered great courage and fought valiantly during the remaining year of his life, much of which was spent in the hospital where he held regular board meetings even during intravenous alimentation. He was elated that the year had proved so profitable for his company and more than covered his hospital expenses!

I often recall the case of a retired Army Colonel suffering with pernicious anemia, at the time, uniformly fatal. My Chief at the Cincinnati General Hospital, Roger S. Morris, sustained him with multiple blood transfusions until the discovery of a cure in the form of calves' liver. I relate this experience to patients with incurable diseases, pointing out that much research is being carried out that applies to their case. And, furthermore, histologic evidence interpreted as indicating a malignant

lesions may, at times, prove erroneous and that some malignant lesions may be very slowly progressive and not beyond the realm of rarely resolving.

It is noteworthy that the courageous Harvard bacteriologist, Hans Zinsser, fully aware that he was dying of leukemia, consoled himself with the thought that he would be spared the ravages of old age!

Osler believed that the physician needs a clear head and a kind heart; his work is arduous and complex, requiring the very highest faculties of the mind, while constantly appealing to the emotions and finer feelings. This great teacher had three personal ideals quite worth emulating: one, to do the day's work well and not to bother about tomorrow; second, to enact the golden rule toward his professional brethren and toward the patients committed to his care and, last, to cultivate a measure of equanamity to enable him to bear success with humility, the affection of his friends with pride, and be ready when the day of sorrow and grief comes to meet it with the courage befitting a man.

Cousins has been a leading advocate of the value of hearty laughter on the healing process so well illustrated in his *Anatomy of an Illness*. He attributes this possibly to the effect of emotions on the body hormones. Sir William Osler regarded laugter as the "music of life" and, according to Harvey Cushing, advised doctors who are spiritually and physically depleted at the end of a long day to find their own medicine in mirth. Paskind showed that laughter actually reduces muscle tone.

Emanuel Libman, a famous clinician, once said, "the physician as of old remains the student and even when he becomes the teacher still remains the student."

Prepare to remain students the rest of your lives and may the passing years prove healthful and richly rewarding.

God bless you all!

Leon Schiff, M.D., Ph.D., M.A.C.P.
Division of Hepatology
University of Miami School of Medicine

The author wishes to express his gratitude to Norman Cousins for reviewing this manuscript.

ENCORES!

Liability nightmare

"Item: A man sticks his two-year-old son's head between the running blades of a ceiling fan — and then sues the manufacturer for failing to warn him the child might be injured.

"Item: A company that had manufactured textile machinery for 136 years goes out of business because of the costs of liability lawsuits over equipment it had manufactured decades earlier.

"Item: After deciding that a drug a woman had taken during pregnancy was not responsible for her child's birth defects, a jury awarded her damages anyway — to help defray medical costs of the child's future care."

These horror stories, culled by a Heritage Foundation researcher, show why product-liability law has become a menace to more than just the Manvilles and Union Carbides of the world. Even without a single obvious disaster, the case-by-case costs of litigation can drive small companies to the wall. Heritage analyst Milton Copulos says 20 per cent of the cost of an ordinary stepladder is traceable to past, present, and future liability.

Sad to say, the horror stories are not mere flukes; each one illustrates a principle of law. The ceiling-fan case is just one example of how courts are disallowing the traditional defense of contributory negligence. Another such case involved a man who strapped a refrigerator to his back and ran a stunt footrace. One of the straps failed, and he collected $1 million from the strap manufacturer.

The textile-machinery case shows how a company can be assessed damages for injuries caused by long-forgotten, impossible-to-track-down products. The drug case typifies the new doctrine of generic liability, under which a consumer who suffers side-effects after taking a pill and cannot remember which brand he took can successfully sue all the makers of the compound in question.

The big winners — did you have any doubt? — are the lawyers. A Rand study found that a typical court case cost $380,000, of which $125,000 went to the defense lawyers, $114,000 to the plaintiff's lawyers, and $141,000 in net compensation to the plaintiff.

One of the ironies of the liability spiral is that in some areas it is making life more risky as well as more expensive. Sears was sued by a heart-attack victim who claimed that its lawnmower starter cord was too hard to pull; but rectifying this "defect" would make it easier for children to endanger themselves by activating the machines. Edmund Kitch, writing in a recent issue of *Regulation*, tells how liability for rare side-effects is driving many manufacturers out of the vaccine market, even in cases where united medical opinion agrees that the vaccines do more good than harm overall.

The diphtheria-tetanus-whooping-cough vaccine for children now costs $2.80 a dose and rising, up from ten cents a while back. Worse yet is the problem of "orphan vaccines." Although medical research continues to progress toward the hope of vaccines against AIDS and herpes, Kitch says that

"testing and obtaining regulatory clearance for such vaccines is not currently of interest to any potential producer. Those invisible non-litigants who would benefit from new vaccines are probably the most dramatic victims of the threat of product-liability law."

Reprinted with permission from *National Review*, August 23, 1985, page 15.

How to drive nurses crazy

Some of our colleagues seem to think they can best serve humanity by making life miserable for nurses.* If this was one of the goals that led you to medical school, I suggest careful reading of the following tips to help you succeed in your task.

For attending physicians: When the nurse calls you with new lab data, tell her to call whoever is consulting in the appropriate field and suggest she not bother you. For consultants on the same case: When the nurse calls you with new lab data, scold her and state emphatically that she should have called the attending physician.

Write orders illegibly and leave the floor before the nurse can get to them. When she calls for clarification, have your answering service say you are gone and signed out to another doctor. If you are the other doctor, say you do not know anything about the patient.

Write most of your orders in the metric system but just enough of them in the apothecary system so nurses have to learn both. Let "g" stand for both grain and gram. Do not let your obvious obsolescence bother you.

If you are one of several physicians treating the same patient, do not look at the other doctors' orders before or after you write yours. It is okay if you order one aminoglycoside for a patient already on another. Let the nurse call the other doctors and straighten it out. Your time is much too valuable to spend trying to avoid conflicting orders.

If you plan to be away for a few days, do not tell the head nurse. Let her find out about it when your patient is in respiratory arrest and the answering service is not sure who is covering.

Insist that only you can order an aspirin or laxative for your patients, but when you put a patient on a ventilator turn the whole thing over to the nurses and respiratory therapists. Tell them not to bother you with the details and to get arterial blood gases whenever they want. Do not confess to them that you have not the slightest idea what the tidal volume should be.

If you are standing next to the chart rack, wait for a nurse to come by and ask her to get your patient's chart for you. If she does, ask her to get you a pen so you can write orders. If she says she is too busy, pout. Then tell everyone the nurses on that floor are no good.

Just as you leave the floor, give one more verbal order that no one quite understands. Then forget the order. When the nurses call for clarification, suggest they pay more attention to you.

Never read nurses' notes but grumble that they never tell you anything.

Criticize nurses vigorously and publicly when they make mistakes. When you err, shrug it off and say that everyone makes mistakes.

Always go to the head of the line in the cafeteria because you have to be in the OR in five minutes. Then take 20 minutes for lunch and dawdle over your coffee for 20 more.

When a nurse calls you at 6:00 a.m. about your patient's deteriorating condition, state firmly that she could have waited until 8:00 a.m. Then come in at 7:30 a.m. and order everything STAT. Question why everything is not ready for you.

After changing the dressing over an infected wound, drop the old dressing on the floor. Do not wash your hands before attending your next patient. Make it clear that hand washing and sterile technique are for others.

If you are not sure whether your patient should be restrained, write the vague order, "Restrain patient PRN." If the family complains that Granny is restrained, say the nurses showed poor judgment. If the family finds Granny on the floor with a broken hip, say the nurses showed poor judgment. Later, explain that "PRN" means the nurse should restrain the patient three minutes before the patient plans to climb over the side rails and break her hip.

Tell your patient she is going home Tuesday but tell the charge nurse you plan to discharge Wednesday. This keeps everyone off guard.

Write surgical prep orders for lumbar spine when you really mean cervical spine. Act betrayed when the patient comes to OR with neck unprepped.

Do not return nurses' telephone calls for orders. You are much too busy. Later, raise a fuss because your patient received no medication for pain.

If the nurses make coffee, help yourself to it but never contribute to the coffee fund. Nurses' incomes are about the same as doctors', so they enjoy providing these small services.

Never carry a dressing tray, for a surgeon's hands are precious. Have the nurse do it.

Never help a nurse reposition a patient in bed; she should be strong enough to do it by herself.

In surgery, if a liter of unexpected and unwanted arterial blood suddenly obscures your operative field, immediately blame the scrub nurse for not

having the proper setup and the circulating nurse for not acting quickly enough to get someone to bail you out. When panic subsides, restrain yourself from thanking them for their help.

If you are hungry and you see a nurse's lunch in the refrigerator, take some of it. She probably had you in mind when she prepared it.

Finally, if your patient's family asks you tell the nurses how much they appreciate the good nursing care, forget to relay the message.

Harvey N. Mandell, M.D.

*I am speaking of sterotypical male physicians who often treat female nurses somewhat differently than they treat male nurses.

Reprinted with permission from *Postgraduate Medicine*, March 1983.

Considering a medical career

I want to be a doctor. Tell me what it is like. How can I know if this is right for me? How can I know if I will be happy as a doctor? Is it hard to earn a living? What do medical schools look for in an applicant, and what courses should I take in college (if I decide to go to medical school) to give me the best chance of being admitted?

Many of us in the medical profession have had these and similar questions put to us by eager and ambitious high school and college students. The most recent person to ask me, because he valued my opinion, was my grandson. After several discussions on this subject he decided medicine was not for him. The answers to the above questions are important to anyone considering a career in medicine, and our replies to the queries of young people with bright and probing minds are not to be given without serious and studied consideration. Inappropriate information, perhaps influenced by personal bias, must be avoided. Undue enthusiasm, reflecting one's own enchantment with and devotion to the practice of medicine, may paint a brighter picture than is warranted. On the other hand, undue pessimism stemming from one's own disenchantment with the problems of the present-day practice of medicine may project a depressing view of a wonderful profession. Young people, with their inquiring minds, their ambition, and their enthusiasm about their future, may be strongly influenced by our words and attitudes. How sad it might be to discourage a potentially fine physician and/or scientist and have him turn to other fields, but how equally distressing to lead a candidate into a profession unsuited to his mind and character or to his goals in life.

In response to an inquiry regarding the best courses to take in preparation for medical school, the student may be astonsihed by advice to limit his scientific courses, and rather to delve heavily into the humanities. A premedical curriculum will demand certain studies in chemistry, physics, and biology, and it behooves the sutdent to excel in these courses, especially chemistry. The medical school curriculum, however, consists almost entirely of scientific subjects; thus the four years of college is the time to become a well rounded, broadly educated person. It is a time to steep oneself in literature, history, arts, languages, philosophy, and economics. It is a special time that will never come again, and time spent on such subjects is of inordinate value. The time should be used to find a good course in the classics, to broaden one's perspective, and to enhance a love of reading and study.

Suppose a father is a physician, as was his father before him. His son respects and loves him, and believes he wishes to follow in his footsteps. How enjoyable it would be to work with and to be taught by that parent. Although outstanding dynasties in the history of medicine are not uncommon, entering medicine only from a sense of obligation, as fulfillment of parental desires and pressures, usually leads to failure. Two of my friends, in order to please their parents but against their own judgment, took the required premedical couses, and were accepted at excellent medical schools. It did not take them long to realize that this was not for them, and they dropped out after only one trimester.

Perhaps financial reward is one of the reasons uppermost in some minds for wanting to become a doctor. "All physicians are wealthy, have fine cars and homes, and take splendid vacations." Nothing could be farther from the truth. The vast majority of doctors, even as their lay counterparts, find it a constant struggle to make financial ends meet. It would be more profitable for one to enter the world of business and finance after college than to struggle through four years of medical school and four to seven subsequent years of postgraduate training before even beginning to earn a livelihood. If one chose to go into business and devote an equivalent amount of energy and an equal number of years learning his work, the businessman's financial status should far surpass anything a doctor might ever earn. The accumulation of wealth can better be achieved in a successful business than in the successful practice of medicine.

One's motives for becoming a doctor may be to acquire respect, admiration, and status among his peers, and also to be highly regarded and recognized

in his own community, his state, and his nation. There was a day when the addition of M.D. to one's name automatically generated respect, reverence, caring and even adulation. The family physician, in his horse and buggy, was loved for his kindness and devotion to his patients. This he could give in quantity, but he could offer little in definitive and curative care. Today, the public judges those in the medical profession with a more critical eye. A colloquialism tells us that "everyone loves his own physician and distrusts all the others." Though an exaggeration, this jest typifies the manner in which doctors are perceived in the lay person's mind. Some few doctors become famous and establish a fine name both at home and abroad, but unfortunately they are rare. I have sadly noted on several occasions that only one year after a patient had a surgical procedure he could no longer even recall his surgeon's name. Obviously, although this surgeon left a scar on the body, he left no lasting impression on the patient's mind. On the positive side, one of the finest rewards for the physician is his acceptance by a peer group with like interests that concentrate on the healing of the ill.

There are young people who consider entering medicine out of a sincer humanitarian desire to help their fellowmen. They may offer this help here in America, or with religious zeal as missionary doctors in distant lands. These are exemplary aspirations, held firmly and honestly by only a small group. It is the exceptional individual who is sustained by such ideals through the long training ordeal to become a missionary doctor. There are few so noble as Dr. Albert Schweitzer. The gratification of aiding in the care of a desperately ill person and seeing a favorable outcome is great, however, and is one of the compensations for failures.

Respect, status, appreciation, the ability to make a comfortable living, gratification through helping others, and being a member of a select group are all rewards of medicine as a career. Do they justify entering the profession? Each attribute contributes in some degree to the magnetism of medicine. All of them added together, however, without a far more important factor, could not have made me happy throughout life as a physician. Scientific interest in the human body, and the human mind, is the exciting and exhilarating force that endures. Paramount is the desire to learn what makes people tick, what physical and chemical processes and reactions enable people to breathe, eat, live, and procreate. The study of the myriad illnesses that overtake people and the ways to combat and at times conquer these illnesses is fascinating. The true physician desires to learn the great discoveries for fighting disease made in both the past and present, and to dream of those to be made in the future. This is what medicine is all about. This interest in the mechanisms of the human body and the ills that befall it, and the manner in which these ills can be overcome, is the challenge. Without this fascination, all the other advantages of being a physician amount to little.

Louis Rosenfeld, M.D.
Nashville, Tennessee

Reprinted with permission from *Southern Medical Journal*, Vol. 78, No. 7, July 1985.

SCAM OF THE MONTH

Editor's Note: The "Scam of the Month" project was undertaken by the Missouri Task Force on Misuse, Abuse and Diversion of Prescription Drugs as part of an effort to improve professional and law enforcement awareness of some of the tricks used by abusers and others to divert prescription drugs to street and other inappropriate use. While the vignettes in this series actually occurred in Missouri, they could occur in Florida and may well have already. We convey our thanks to the Missouri Task Force for sharing this series with us.

"The police report scam"

Kansas City investigators recently have uncovered a new twist to professional patient approaches to physicians and dentists. Following any successful attempt at securing desired prescriptions, a return visit is made within a few days.

The professional patient explains to the prescriber that shortly after his last visit, he was robbed (or burglarized) and his medication was taken. He then shows the physician evidence that he has reported the incident to the police. He usually exhibits a copy of the police report. Obviously, he needs a replacement prescription.

This ploy is apparently very successful. The professional patient has doubled the amount of drugs illegally secured by his original scam.

Caution • Physicians are cautioned to be alert in such occurences. Changing the replacement prescription to an alternative drug — one not so highly valued by the professional patient — can be an effective deterent to this ruse.

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BOOK REVIEWS

Book Review Editor — F. Norman Vickers, M.D.

A woman doctor's Civil War: Esther Hill Hawks diary

Edited by Gerold Schwartz, 301 pages. Price $17.95. University of South Carolina Press.

A few years ago the diaries of Esther Hill Hawks, a nineteenth century New England physician, were discovered in a Massachusetts apartment building about to be renovated. The diary entries describe Hawks' experiences as a teacher for the National Freedman's Relief Association in the Sea Islands of South Carolina and in Florida. The editor, Gerald Schwartz, has carefully identified the military personnel references in Esther Hawks' reminiscences. He has also provided helpful footnotes, a bibliography and a detailed index.

The medical history buff will be disappointed to discover that Dr. Hawks' diary accounts do not relate to the practice of medicine. Instead, they tell the poignant story of her work teaching the Negroes during and after the Civil War. However, the book includes an interesting foreword and afterword that describe the highlights of Esther Hill's life. In 1854 she married Dr. Milton Hawks and became interested in medicine as a result of reading her husband's medical textbooks during their wedding sojourn in Florida. She subsequently studied medicine at the New England Female Medical College and enjoyed a successful practice in Massachusetts after finishing her work with the Freedman's Association. This book will have special appeal to those interested in the history of the Reconstruction and in women's studies.

Elizabeth D. Vickers
Pensacola

- Mrs. Vickers, a former nurse-educator, is the wife of Dr. F. Norman Vickers, Associate Editor of *The Journal*. She is a previous contributor of historical articles to this journal and an avid Pensacola historian.

An illustrated guide to some poisonous plants and animals of Florida

By George R. Campbell, 175 pages. Price $15.95. Pineapple Press, Inc.

As the title implies, this small book is a "handy-dandy" reference manual for quick information and should prove quite useful in the office or emergency room, where this type problem may be encountered. This does not cover all toxic plants and insects and animals, by any means, but certainly the most common forms are covered in this book. The major sections are written more or less in outline form in the poisonous plants section proper, the usual sections of the information given include: common name; where found; scientific names; description of the plants; nature of the toxicity; symptoms caused by exposure to the plant; and the appropriate first aid indicated in countering the effects of the plant.

These data concerning poisonous plants make up the bulk of the book. However, there are sections in the book having to do with toxic insects, toxic fish, toxic reptiles. The same categories of information noted above are usually given for the insects, reptiles, etc., also, and some useful identification data, including sketches, are also included.

This reference book should prove useful in the emergency room or office where such problems arise.

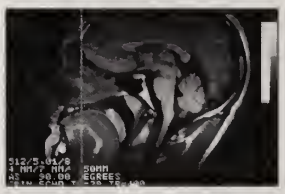
NOTE: Readers who are interested in these subjects should refer to and obtain also a copy of the prize-winning *Journal of the Florida Medical Association* of March, 1978.

L. E. McHenry, M.D.
Melbourne

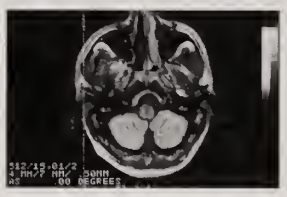
- Dr. McHenry practices pathology in Melbourne and was the Guest Editor of the Special Issue on Adverse Reactions to Plants in Florida, Vol. 65, No. 3, March 1978.

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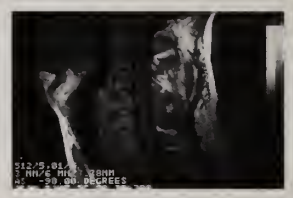
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References:
1. Strauss WE, McIntyre KM, Parisi AF, et al: Safety and efficacy of diltiazem hydrochloride for the treatment of stable angina pectoris: Report of a cooperative clinical trial. Am J Cardiol 49:560-566, 1982.
2. Pool PE, Seagren SC, Bonanno JA, et al: The treatment of exercise-inducible chronic stable angina with diltiazem: Effect on treadmill exercise. Chest 78 (July suppl):234-238, 1980.

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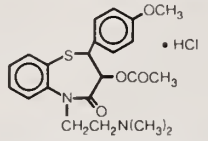
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Diltiazem hydrochloride is a white to off-white crystalline powder with a bitter taste. It is soluble in water, methanol, and chloroform. It has a molecular weight of 450.98. Each tablet of CARDIZEM contains either 30 mg or 60 mg diltiazem hydrochloride for oral administration.

CLINICAL PHARMACOLOGY

The therapeutic benefits achieved with CARDIZEM are believed to be related to its ability to inhibit the influx of calcium ions during membrane depolarization of cardiac and vascular smooth muscle.

Mechanisms of Action. Although precise mechanisms of its antianginal actions are still being delineated, CARDIZEM is believed to act in the following ways:

1. Angina Due to Coronary Artery Spasm: CARDIZEM has been shown to be a potent dilator of coronary arteries both epicardial and subendocardial. Spontaneous and ergonovine-induced coronary artery spasm are inhibited by CARDIZEM.
2. Exertional Angina: CARDIZEM has been shown to produce increases in exercise tolerance, probably due to its ability to reduce myocardial oxygen demand. This is accomplished via reductions in heart rate and systemic blood pressure at submaximal and maximal exercise work loads.

In animal models, diltiazem interferes with the slow inward (depolarizing) current in excitable tissue. It causes excitation-contraction uncoupling in various myocardial tissues without changes in the configuration of the action potential. Diltiazem produces relaxation of coronary vascular smooth muscle and dilation of both large and small coronary arteries at drug levels which cause little or no negative inotropic effect. The resultant increases in coronary blood flow (epicardial and subendocardial) occur in ischemic and nonischemic models and are accompanied by dose-dependent decreases in systemic blood pressure and decreases in peripheral resistance.

Hemodynamic and Electrophysiologic Effects. Like other calcium antagonists, diltiazem decreases sinoatrial and atrioventricular conduction in isolated tissues and has a negative inotropic effect in isolated preparations. In the intact animal, prolongation of the AH interval can be seen at higher doses.

In man, diltiazem prevents spontaneous and ergonovine-provoked coronary artery spasm. It causes a decrease in peripheral vascular resistance and a modest fall in blood pressure and, in exercise tolerance studies in patients with ischemic heart disease, reduces the heart rate-blood pressure product for any given work load. Studies to date, primarily in patients with good ventricular function, have not revealed evidence of a negative inotropic effect; cardiac output, ejection fraction, and left ventricular end diastolic pressure have not been affected. There are as yet few data on the interaction of diltiazem and beta-blockers. Resting heart rate is usually unchanged or slightly reduced by diltiazem.

Intravenous diltiazem in doses of 2D mg prolongs AH conduction time and AV node functional and effective refractory periods approximately 20%. In a study involving single oral doses of 3D0 mg of CARDIZEM in six normal volunteers, the average maximum PR prolongation was 14% with no instances of greater than first-degree AV block. Diltiazem-associated prolongation of the AH interval is not more pronounced in patients with first-degree heart block. In patients with sick sinus syndrome, diltiazem significantly prolongs sinus cycle length (up to 50% in some cases).

Chronic oral administration of CARDIZEM in doses of up to 240 mg/day has resulted in small increases in PR interval, but has not usually produced abnormal prolongation. There were, however, three instances of second-degree AV block and one instance of third-degree AV block in a group of 959 chronically treated patients.

Pharmacokinetics and Metabolism. Diltiazem is absorbed from the tablet formulation to about 80% of a reference capsule and is subject to an extensive first-pass effect, giving an absolute bioavailability (compared to intravenous dosing) of about 40%. CARDIZEM undergoes extensive hepatic metabolism in which 2% to 4% of the unchanged drug appears in the urine. In vitro binding studies show CARDIZEM is 70% to 80% bound to plasma proteins. Competitive ligand binding studies have also shown CARDIZEM binding is not altered by therapeutic concentrations of digoxin, hydrochlorothiazide, phenylbutazone, propranolol, salicylic acid, or warfarin. Single oral doses of 30 to 120 mg of CARDIZEM result in detectable plasma levels within 3D to 60 minutes and peak plasma levels two to three hours after drug administration. The plasma elimination half-life following single or multiple drug administration is approximately 3.5 hours. Desacetyl diltiazem is also present in the plasma at levels of 10% to 20% of the parent drug and is 25% to 50% as potent a coronary vasodilator as diltiazem. Therapeutic blood levels of CARDIZEM appear to be in the range of 50 to 2D0 ng/ml. There is a departure from dose-linearity when single doses above 60 mg are given; a 120-mg dose gave blood levels three times that of the 60-mg dose. There is no information about the effect of renal or hepatic impairment on excretion or metabolism of diltiazem.

INDICATIONS AND USAGE

1. **Angina Pectoris Due to Coronary Artery Spasm.** CARDIZEM is indicated in the treatment of angina pectoris due to coronary artery spasm. CARDIZEM has been shown effective in the treatment of spontaneous coronary artery spasm presenting as Prinzmetal's variant angina (resting angina with ST-segment elevation occurring during attacks).
2. **Chronic Stable Angina (Classic Effort-Associated Angina).** CARDIZEM is indicated in the management of chronic stable angina. CARDIZEM has been effective in controlled trials in reducing angina frequency and increasing exercise tolerance.

There are no controlled studies of the effectiveness of the concomitant use of diltiazem and beta-blockers or of the safety of this combination in patients with impaired ventricular function or conduction abnormalities.

CONTRAINDICATIONS

CARDIZEM is contraindicated in (1) patients with sick sinus syndrome except in the presence of a functioning ventricular pacemaker, (2) patients with second- or third-degree AV block except in the presence of a functioning ventricular pacemaker, and (3) patients with hypotension (less than 90 mm Hg systolic).

WARNINGS

1. **Cardiac Conduction.** CARDIZEM prolongs AV node refractory periods without significantly prolonging sinus node recovery time, except in patients with sick sinus syndrome. This effect may rarely result in abnormally slow heart rates (particularly in patients with sick sinus syndrome) or second- or third-degree AV block (six of 1243 patients for D.48%). Concomitant use of diltiazem with beta-blockers or digitalis may result in additive effects on cardiac conduction. A patient with Prinzmetal's angina developed periods of asystole (2 to 5 seconds) after a single dose of 60 mg of diltiazem.
2. **Congestive Heart Failure.** Although diltiazem has a negative inotropic effect in isolated animal tissue preparations, hemodynamic studies in humans with normal ventricular function have not shown a reduction in cardiac index nor consistent negative effects on contractility (dp/dt). Experience with the use of CARDIZEM alone or in combination with beta-blockers in patients with impaired ventricular function is very limited. Caution should be exercised when using the drug in such patients.
3. **Hypotension.** Decreases in blood pressure associated with CARDIZEM therapy may occasionally result in symptomatic hypotension.
4. **Acute Hepatic Injury.** In rare instances, patients receiving CARDIZEM have exhibited reversible acute hepatic injury as evidenced by moderate to extreme elevations of liver enzymes. (See PRECAUTIONS and ADVERSE REACTIONS.)

PRECAUTIONS

General. CAROIZEM (diltiazem hydrochloride) is extensively metabolized by the liver and excreted by the kidneys and in bile. As with any new drug given over prolonged periods, laboratory parameters should be monitored at regular intervals. The drug should be used with caution in patients with impaired renal or hepatic function. In subacute and chronic dog and rat studies designed to produce toxicity, high doses of diltiazem were associated with hepatic damage. In special subacute hepatic studies, oral doses of 125 mg/kg and higher in rats were associated with histological changes in the liver which were reversible when the drug was discontinued. In dogs, doses of 20 mg/kg were also associated with hepatic changes; however, these changes were reversible with continued dosing.

Drug Interaction. Pharmacologic studies indicate that there may be additive effects in prolonging AV conduction when using beta-blockers or digitalis concomitantly with CARDIZEM. (See WARNINGS).

Controlled and uncontrolled domestic studies suggest that concomitant use of CARDIZEM and beta-blockers or digitalis is usually well tolerated. Available data are not sufficient, however, to predict the effects of concomitant treatment, particularly in patients with left ventricular dysfunction or cardiac conduction abnormalities. In healthy volunteers, diltiazem has been shown to increase serum digoxin levels up to 20%.

Carcinogenesis, Mutagenesis, Impairment of Fertility. A 24-month study in rats and a 21-month study in mice showed no evidence of carcinogenicity. There was also no mutagenic response in in vitro bacterial tests. No intrinsic effect on fertility was observed in rats.

Pregnancy. Category C. Reproduction studies have been conducted in mice, rats, and rabbits. Administration of doses ranging from five to ten times greater (on a mg/kg basis) than the daily recommended therapeutic dose has resulted in embryo and fetal lethality. These doses, in some studies, have been reported to cause skeletal abnormalities. In the perinatal/postnatal studies, there was some reduction in early individual pup weights and survival rates. There was an increased incidence of stillbirths at doses of 20 times the human dose or greater.

There are no well-controlled studies in pregnant women; therefore, use CARDIZEM in pregnant women only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers. It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, exercise caution when CARDIZEM is administered to a nursing woman if the drug's benefits are thought to outweigh its potential risks in this situation.

Pediatric Use. Safety and effectiveness in children have not been established.

ADVERSE REACTIONS

Serious adverse reactions have been rare in studies carried out to date, but it should be recognized that patients with impaired ventricular function and cardiac conduction abnormalities have usually been excluded.

In domestic placebo-controlled trials, the incidence of adverse reactions reported during CARDIZEM therapy was not greater than that reported during placebo therapy.

The following represent occurrences observed in clinical studies which can be at least reasonably associated with the pharmacology of calcium influx inhibition. In many cases, the relationship to CARDIZEM has not been established. The most common occurrences, as well as their frequency of presentation, are: edema (2.4%), headache (2.1%), nausea (1.9%), dizziness (1.5%), rash (1.3%), asthenia (1.2%), AV block (1.1%). In addition, the following events were reported infrequently (less than 1%) with the order of presentation corresponding to the relative frequency of occurrence.

Cardiovascular:	Flushing, arrhythmia, hypotension, bradycardia, palpitations, congestive heart failure, syncope.
Nervous System:	Paresthesia, nervousness, somnolence, tremor, insomnia, hallucinations, and amnesia.
Gastrointestinal:	Constipation, dyspepsia, diarrhea, vomiting, mild elevations of alkaline phosphatase, SGOT, SGPT, and LOH.
Dermatologic:	Pruritus, petechiae, urticaria, photosensitivity.
Other:	Polyuria, nocturia.

The following additional experiences have been noted:

A patient with Prinzmetal's angina experiencing episodes of vasospastic angina developed periods of transient asymptomatic asystole approximately five hours after receiving a single 60-mg dose of CARDIZEM.

The following postmarketing events have been reported infrequently in patients receiving CARDIZEM: erythema multiforme; leukopenia; and extreme elevations of alkaline phosphatase, SGOT, SGPT, LDH, and CPK. However, a definitive cause and effect between these events and CARDIZEM therapy is yet to be established.

OVERDOSAGE OR EXAGGERATED RESPONSE

Overdosage experience with oral diltiazem has been limited. Single oral doses of 300 mg of CARDIZEM have been well tolerated by healthy volunteers. In the event of overdosage or exaggerated response, appropriate supportive measures should be employed in addition to gastric lavage. The following measures may be considered:

Bradycardia	Administer atropine (0.60 to 1.0 mg). If there is no response to vagal blockade, administer isoproterenol cautiously.
High-Degree AV Block	Treat as for bradycardia above. Fixed high-degree AV block should be treated with cardiac pacing.
Cardiac Failure	Administer inotropic agents (isoproterenol, dopamine, or dobutamine) and diuretics.
Hypotension	Vasopressors (eg, dopamine or levarterenol bitartrate).

Actual treatment and dosage should depend on the severity of the clinical situation and the judgment and experience of the treating physician.

The oral LD_{50}'s in mice and rats range from 415 to 740 mg/kg and from 560 to 810 mg/kg, respectively. The intravenous LD_{50}s in these species were 60 and 38 mg/kg, respectively. The oral LD_{50} in dogs is considered to be in excess of 50 mg/kg, while lethality was seen in monkeys at 360 mg/kg. The toxic dose in man is not known, but blood levels in excess of 800 ng/ml have not been associated with toxicity.

DOSAGE AND ADMINISTRATION

Exertional Angina Pectoris Due to Atherosclerotic Coronary Artery Disease or Angina Pectoris at Rest Due to Coronary Artery Spasm. Dosage must be adjusted to each patient's needs. Starting with 30 mg four times daily, before meals and at bedtime, dosage should be increased gradually (given in divided doses three or four times daily) at one- to two-day intervals until optimum response is obtained. Although individual patients may respond to any dosage level, the average optimum dosage range appears to be 180 to 240 mg/day. There are no available data concerning dosage requirements in patients with impaired renal or hepatic function. If the drug must be used in such patients, titration should be carried out with particular caution.

Concomitant Use With Other Antianginal Agents:

1. **Sublingual NTG** may be taken as required to abort acute anginal attacks during CARDIZEM therapy.
2. **Prophylactic Nitrate Therapy**—CARDIZEM may be safely coadministered with short- and long-acting nitrates, but there have been no controlled studies to evaluate the antianginal effectiveness of this combination.
3. **Beta-blockers.** (See WARNINGS and PRECAUTIONS.)

HOW SUPPLIED

Cardizem 30-mg tablets are supplied in bottles of 100 (NDC 0088-1771-47) and in Unit Dose Identification Paks of 100 (NDC 0088-1771-49). Each green tablet is engraved with MARION on one side and 1771 engraved on the other. CARDIZEM 6D-mg scored tablets are supplied in bottles of 100 (NDC 0088-1772-47) and in Unit Dose Identification Paks of 1DD (NDC 0088-1772-49). Each yellow tablet is engraved with MARION on one side and 1772 on the other.

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Auxiliary Liaison Editor — **Mrs. Walter (Isabella) Laude**

Marketing membership

The medical auxiliary is a unique organization composed of spouses of physicians who are dedicated to programs that improve the quality of life for all people, promoting health education, and fostering good will among the members of the medical community. Though our members are diverse in their other interests, they share these common goals. These shared aims should form the basis for marketing our membership. The medical auxiliary alone can offer this unique oppotunity for pursuing these objectives. It is the product that fits our requirements for good marketing.

The basis of all good marketing is to analyze the needs and desires of the consumer, and then, to create a product which fits those requirements. Marketing our membership is an ever present task. It is the life-line of our organization: recruiting, retaining, and retrieving members.

Physicians' spouses join the Auxiliary because they perceive its worthwhile objectives. They realize that the Auxiliary needs their own very special talents, and they understand what the Auxiliary can mean to them as individuals and as a potent group for action.

In accomplishing these goals we must remember the importance of communication. Our members and potential members need to be aware of what all levels of the federation — the AMA Auxiliary, the FMA Auxiliary, and the local county auxiliary can achieve. If information is not made available at all levels, how can we know the value of our Auxiliary membership?

We owe our members the opportunity to use their talents. I am constantly amazed at the abilities that are available to us through our Auxilians. It is our responsibility to recognize these gifts and to allow our members to grow through their use. We must emphasize the truth, that their talents and abilities are necessary to reach Auxiliary goals.

We must share our feelings that personally we have received from joining the Auxiliary. Friendship, opportunity for personal growth, feelings of accomplishment, contribution to the improvement of the quality of life for all are but a few of the personal gains and satisfaction of Auxiliary membership.

Our medical schools indicate an increase in female medical students. Are we prepared to be a relevant organization for the male spouse of more than 30% of our potential members? Our foreign-born spouses represent an ever increasing segment of our potential membership. We are obligated to be aware of the special needs of our members who come from different backgrounds, but with the same basic goals. Our resident and medical student spouses are on the verge of the world of private or group practice, or academic medicine. We share the responsibility of making them aware of the support our group offers.

We must find ways to reach the spouses of physicians who do not live in the area of an organized county Auxiliary, and to find ways to meet the needs of more and more of our potential and current members who choose to enter into careers of their own. We must be flexible in our schedules and programming, concise in our meeting format, and a vital force to attract and retain their support.

Let us work together during this year to increase our membership. Let us be the organization, which through our federation has national, state, and local impact. Let us market what we, and we alone, are able to provide — The Medical Auxiliary.

Mrs. David S. (Sandra) Whittaker
FMA Auxiliary First Vice President
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Meetings

Accepted by the FMA Committee on Continuing Medical Education for Mandatory Credit

OCTOBER

Treatment Options in Drug and Alcohol Abuse, Oct. 1, Holy Cross Hospital, Ft. Lauderdale. Contact: John Fichtelman, M.D., 4725 N. Federal Highway, Ft. Lauderdale, Fl. 33308, (305) 492-5728.

Medicolegal Issues in Obstetrics, Oct. 3-6, New York City, N.Y. For more info: Robert Kruppel, M.D., 12901 N. 30th Street, Tampa, Fl. 33612, (813) 251-3748.

L.W. Blake Memorial CME Conferences, Oct. 4, 11, 18, 25, L.W. Blake Memorial, Bradenton. Contact: Jack H. Sanders, M.D., 2010 59th Street, West #5100, Bradenton, FL 33529.

The Professional and Chemical Dependency, Oct. 4, New World Landing, Pensacola. Contact: Brunie Emanuel, Route 2, Box 174, Gulf Breeze, Florida 32561, 932-9375.

Management of the Crooked Nose, Oct. 5, Mt. Sinai Medical Center/Carollwood Community Center, Miami Beach/Tampa. Contact: EF Teleplast, Registrar, (312) 856-1818.

Temporomadinibular Joint (JMJ), October 8, Doctors Hospital, Lake Worth. Contact: Roberto Miguel, M.D., 2889 10th Avenue North, #203, Lake Worth, Fl. 33461, (305) 965-3280.

Laser Surgery Training Course, Oct. 8-11, Contemporary Resort Hotel, Orlando. Contact: Douglas Dew, M.D., 1414 S. Kuhl Avenue, Orlando, Fl., 32806, (305) 841-5144.

1985 Fall Conference on Pediatric Trauma, Oct. 11-12, Orlando Airport Marriott, Orlando. Contact: Joan H. Pyle, Dept. of EMS, P.O. Box 1393, Orlando, Fl. 32802, (305) 420-3188.

Vascular and Pulmonary Diseases — Diagnosis and Managment, Oct. 11-13, Dutch Americana Hotel, Lake Buena Vista. Contact: Stephen E. Mattingly, 5808 S. Rapp Street, Littleton, CO 80120, (3)3) 798-9682.

1985 TNO-ISIR Meeting on the Interferon System, Oct. 13-18, Holiday Inn, Surfside, Clearwater. Contact: William Stewart, 12901 N. 30th Street, Tampa, Fl. 33612, 813-974-2178.

Eleventh Annual PanAmerican Seminar, Oct. 14-18, Mount Sinai Medical Center, Miami Beach. For more info: Mount Sinai Medical Center, 4300 Alton Road, Miami Beach, 33140, (305) 674-2311.

Calcium Channel Blockers New Concepts, Oct. 16, Lincoln Hotel, Tampa. Contact: Stephen Glasser, M.D., 12901 N. 30th St., Tampa, Fl. 33612, (813) 974-2880.

Advanced Neuroradiology Seminar, October 16-19, Hilton Hotel, Lake Buena Vista. For information: Charleen Krissman, 12901 N. 30th Street, Tampa 33612, (813) 974-2538.

First Annual Conference on Clinical Problems in Primary Care, Oct. 18, USF College of Medicine, Tampa. Contact: Joseph Finster, M.D., 12901 N. 30th Street, Tampa, Florida 33612, (813) 974-4296. **Selected Topics in Internal Medicine,** Oct. 18-19, New World Landing, Pensacola. Contact: K. Inge Holmar, 14 W. Jordan Street, Pensacola, FL 32501, (904) 434-0151.

Third Annual Meeting of the Vitreous Society, October 23-26, Contemporary Hotel, Lake Buena Vista. Contact: W.S. Grizzard, M.D., 12901 N. 30th Street, Tampa, Fl. 33612, 813-875-6373.

Pain Management Conference, Oct. 24-26, Royal Plaza Hotel, Orlando. Contact: Marge Duchano, R.N., Orlando Regional Medical Center, 1414 S. Kuhl Avenue, Orlando, Fl. 32806, (305) 841-5144.

Thirty-ninth Regional Family Practice Weekend, October 25-27, Marriott Biscayne Bay Hotel, Miami. For information: Charles A. Dunn, M.D., 4057 Carmichael Ave., Suite 229, Jacksonville 32207, (904) 398-5667.

Fall 1985 Family Practice Review, Oct. 28-Nov. 1, Palace Hotel, Lake Buena Vista. For information: Lamar Crevasse, M.D., JHMHC J-233, Gainesville, 32610, (904) 392-3143.

Clnical Applications for Pulsed, Continuous Color Flow Doppler Echocardiography, Oct.31-Nov. 1, Mount Sinai Medical Center, Miami Beach. For information: Mount Sinai Medical Center, 4300 Alton Road, Miami Beach, 33140, (305) 674-2311.

Nutrition In Pediatric Practice, October 30-November 1, Don Cesar Resort, St. Petersburg. For information: Herbert Pomerance, M.D., 12901 N. 30th Street, Box 15, Tampa 33612, 813-974-4214.

11th Annual S.E. Conference on High Blood Pressure, Oct. 30-Nov. 1, Las Palmas Inn, Orlando. Contact: James C. Bailey, 1317 Winewood Blvd., Tallahassee, Fl. 32301, (904) 488-2901.

NOVEMBER

Twenty-sixth Workshop in Electrocardiography, Nov. 1-4, Sheraton Sand Key Hotel, Clearwater. For information: Henry Marriott, M.D., 601 12th Street N., St. Petersburg 33705, (813) 894-0790.

Advanced Cardiac Life Support, Nov. 2-3, USF College of Medicine, Tampa. For more information: J. Paul Michlin, M.D., 12901 N. 30th St., Tampa, Fl. 33612, (813) 251-6911.

Spinal Deformities, November 3-6, Sheraton Bal Harbour, Bal Harbour. For information: Barry Silverman, 2050 N.E. 163rd Street, N. Miami Beach 33162, (305) 944-4746.

Current Advances in Perinatology, Nov. 3-9, Virgin Islands. Contact: Charles R. Bauer, M.D., Division of Pediatrics, P.O. Box 016960, Miami, Fl. 33101, (305) 547-5808.

Third Annual Meeting Florida Medical Professional Group, Nov. 8-10, Tradewinds Hotel, St. Petersburg. Contact: Walter W. Hamilton, 1201 5th Avenue North #505, St. Petersburg, FL (813) 821-9760.

Eleventh Annual Review Courses in OB/GYN, Nov. 13, Miami. Contact: Patty Mundy, P.O. Box 016960, Miami, Fl. 33101, (305) 549-6944.

Third Annual Childrens Hospital Foundation — Care of the Sick Child, Nov. 14-16, Palace Hotel, Lake Buena Vista. Contact: Joseph Chiaro, M.D., 1414 S. Kuhl Ave. Orlando, Fl. 32806, (305) 841-5143.

Eleventh Annual OB/GYN Reveiw Courses, Nov. 14-25, Sheraton Royal Biscayne Hotel, Key Biscayne. Contact: Patti Mundy, P.O. Box 016960, Miami, Fl. 33101, (305) 549-6944.

Ninth Annual Seminar: Evolution in the Total Care of the Pediatric Hematology/Oncology Patient, November 21-23, Hyatt Orlando, Orlando. For information: Cindi Butson, P.O. Box 13372, University Station, Gainesville 32604, 904-375-6848.

Vascular and Pulmonary Diseases: Diagonsis and Management, Nov. 22-24, Sonesta Beach Hotel, Key Biscayne. Contact: Stephen E. Mattingly, 5808 S. Rapp Street, Littleton, Co 80120, (303) 798-9682.

DECEMBER

Techniques of Therapeutic Gastrointestinal Endoscopy, December 4-6, Contemporary Resort Hotel, Lake Buena Vista. For info: H. Worth Boyce Jr., M.D., USF College of Medicine, Box 19, 12901 N. 30th Street, Tampa 33612 (813) 974-2034.

Innovative and Controversial Strategies in Rehabilitation II: Technology and Techniques, Dec. 4-8, Sheraton Bal Harbour, Miami. Contact: Gloria Allington, P.O. Box 016960, Miami, Fl. 33101, (305) 547-6716.

Clinical Allergy and Immunology for the Practicing Physician, Dec. 5-7, Palace Hotel, Lake Buena Vista. For info: Richard F. Lockey, M.D., VA Hospital, 13000 N. 30th St., Tampa, 33612, (813) 972-2000, ext.596.

Ear, Nose, & Throat Diseases in Children, December 7-11, The Breakers, Palm Beach. For information: 125 DeSoto Street, Piladelphia, PA 15213, 412-647-5466.

Emergencies in Internal Medicine, VIII, Dec. 8-14, St. Thomas, Virgin Islands. For more information: Gloria Allington, P.O. Box 016960, Miami, Fl. 33101, 305-547-6716.

New Approaches to Common Disorders II, Dec. 11-14, Clearwater Beach. For information: Joel Gleason, M.D., 12901 N. 30th Street, Tampa, Florida 33612, (813) 397-5511.

JANUARY

Thirty-first Annual Cardiovascular Seminar, Jan. 10-11, Sheraton Sand Key Resort, Clearwater Beach. Contact: Anita Godsey, P.O. Box 7188, St. Petersburg, FL 33734, (813) 526-6000.

Omni-Specialty Medical Update, Jan. 12-14, Naples Bath and Tennis Club, Naples. Contact: James Marion, M.D.

The Economic Impact: Drug Abuse in the Work Force, Jan. 15-17, James L. Knight International Club, Miami. Contact: Conference Center, 400 S.E. 2nd Avenue, Miami, FL 33131, (305) 372-0140.

Eighteenth Annual Postgraduate Seminar in Pediatric and Adulat Urology, Jan. 15-18, Sheraton Bal Habor, Miami Beach. Contact: Victor A. Poktano, M.D., Dept. of Urology, 6614 Miami Lakes Drive East, Mlaml Lakes, FL 32014, (305) 687-1367.

Cardiology Tutorials In the Wilderness, Jan. 18-25, Canoe Trip, Everglades. Contact: Peter E. Pool, M.D., UCSD School of Medlcine, La Jolla, CA 92093, (619) 452-3940.

Eleventh Annual Review and Recent Practical Advantages in Pathology, Jan. 19-24, Hyatt Hotel, Miami. Contact: A. Morales, M.D., P.O. Box 016960, Miami, FL 33101, (305) 549-6437.

Symposium on Cancer Biology and Therapeutics, Jan. 20-22, Curtis Hixon Convention Center, Tampa. Contact: J. G. Cory, Ph.D., Medical Center, Box 46, 12901 N. 30th Street, Tampa, FL 33612.

MedTech '86, Jan. 20-22, Curtis Hixon Convention Center, Tampa. Contact: International Conference Management, c/o The Madison, 15851 Dallas Parkway, Suite 1155, Dallas, TX 75248, (214) 458-7011.

Annual Symposium on Cancer Biology and Therapeutics, Jan. 20-22, USF College of Medicine, Tampa. Contact: Joseph Cory, Ph.D., 12901 N. 30th Street, Tampa, FL 33612, (813) 974-4296.

A Practical Approach to Solutions and Problems in Burn Care, Jan. 30-Feb 1, Clearwater Beach. Contact: C. Wayne Cruse, M.D., 12901 N. 30th Street, Tampa, FL 33612, (813) 974-4296.

Vascular and Pulmonary Diseases: Diagnosis and Management, Jan. 31-Feb. 2, Don Cesar Hotel, St. Petersburg. Contact: Stephen E. Mattingly, (303) 798-9682.

FEBRUARY

Ultrasound Integrated into Modern Ob-Gyn, Miami Beach. Contact: William A. Little, M.D., P.O. Box 016960, Miami, FL 33101, (305) 549-6944.

Internal Medicine — Selected Aspects, Feb. 1-8, Telluride, Colorado. Contact: Gloria Allington, P.O. Box 016960, Miami, FL 33101, (305) 547-6716.

Twelfth Annual Bail Conference in Anesthesiology, Vail, Colorado. Contact: Brlan Craythorne, M.D., P.O. Box 016960, Miami, FL 33101, (305) 547-6411.

Controversies in Carcinoma of the Breast, Feb. 1-8, Snowmass, Colorado. Contact: Martin Silbiger, M.D., 12901 N. 30th Street, Tampa, FL 33612, (813) 974-2538.

Eighteenth Miami Winter Symposium — Advances in Gene Technology, Feb. 3-7, Hyatt Regency Hotel, Miami. Contact: William J. Whelan, P.O. Box 016960, Miami, FL 33101, (305) 547-6265.

Hair Replacement Surgery for the Beginner, Feb. 5-9, Miami Airport Hilton, Miami. Contact: Sorrel S. Risnik, M.D., 9065 S.W. 87 Ave., Suite 109, Miami, FL 33176, (305) 279-6060.

Twenty-third Annual Neuro-ophthalmology Course, Feb. 6-8, Sonesta Beach Hotel, Key Biscayne. Contact: Hilary Hose, 6125 S.W. 31 Street, Miami, FL 33155, (305) 667-7060.

Pulmonary, Allergy and Infectious Diseases, Feb. 10-14, Palace Hotel, Lake Buena Vista. Contact: Udaya Prakash, M.D., 200 1st Street, S.W., Rochester, MN 55905, (507) 284-2511.

Pediatrics for the Practitioner, Feb. 14, USF College of Medicine, Tampa. Contact: Herbert Pomerance, M.D., 12901 N. 30th Street, Tampa, FL 33612, (813) 974-4214.

Conference on the Beach, Feb. 17-22, Daytona Hilton, Daytona Beach. Contact; Tariq Siddiqui, M.D., P.O. Box 1990, Daytona Beach, FL 32015, (904) 254-4051.

Pediatric Dermatology Seminar, Feb. 20-23, Eden Roc Hotel, Miami Beach. Contact: Guenter Kahn, 16800 N.W. 2nd Avenue #401, N. Miami Beach, FL 33169, (305) 652-8600.

Eleventh Annual Midwinter Seminar in Ob/Gyn, Feb. 26-March 1, St. Petersburg Beach. Contact: J. M. Ungram, M.D., 12901 N. 30th Street, Tampa, FL 33617, (813) 974-2088.

Eighteenth Teaching Conference in Clinical Cardiology, Feb. 26-March 1, Sheraton Bal Harbour, Bal Harbour. Contact: Michael S. Gordon, M.D., D-41, P.O. Box 016960, Miami, FL 33101, (305) 547-6491.

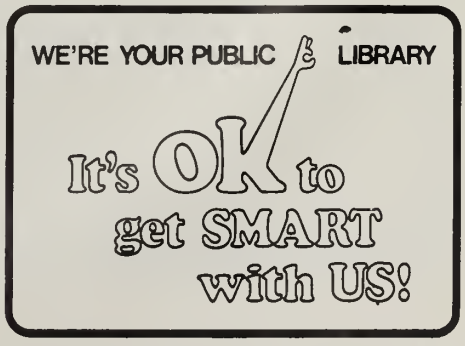
Health Care of the Elderly, Feb. 27-March 1, USF College of Medicine, Tampa. Contact: Eric Pfeiffer, M.D., 12901 N. 30th Street, Tampa, FL 33612, (813) 974-4355.

Current Concepts in Surgery of the Gastrointestinal Tract, Feb. 27-March 1, Diplomat Hotel, Hollywood. Contact: 6614 Miami Lakes Drive East, Miami Lakes, FL 33014, (305) 687-1367.

Surgical Anatomy of the Eyelids, Orbit and Lacrimal Apparatus, Feb. 27-March 1, Lincoln Hotel and USF College of Medicine, Tampa. Contact: Jay J. Older, M.D., 12901 N. 30th Street, Tampa, FL 33612, (813) 974-3170.

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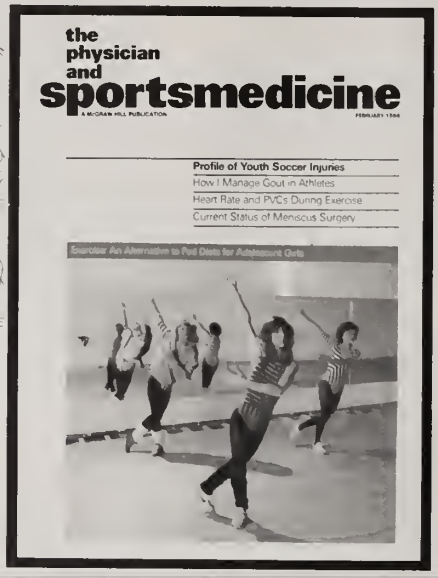
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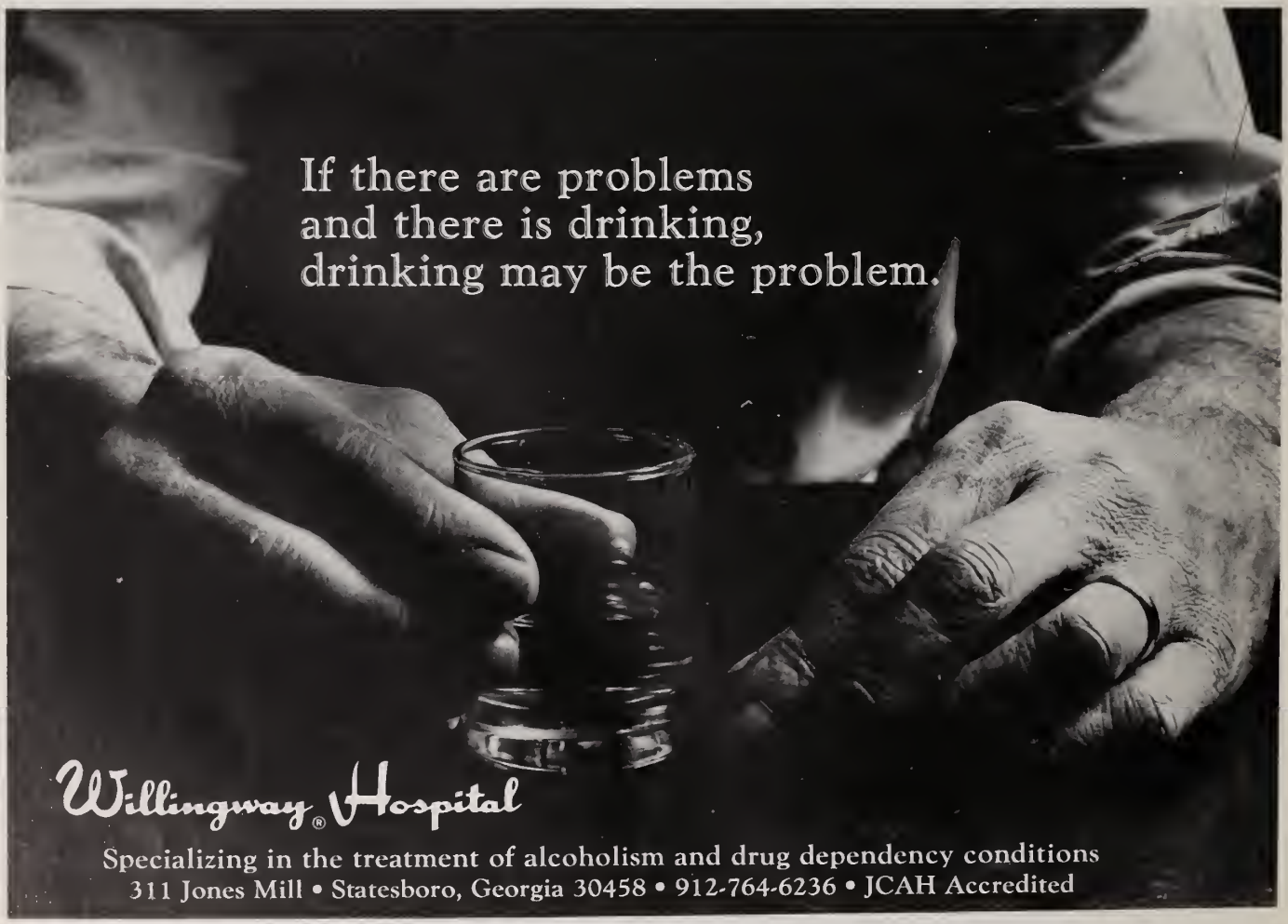
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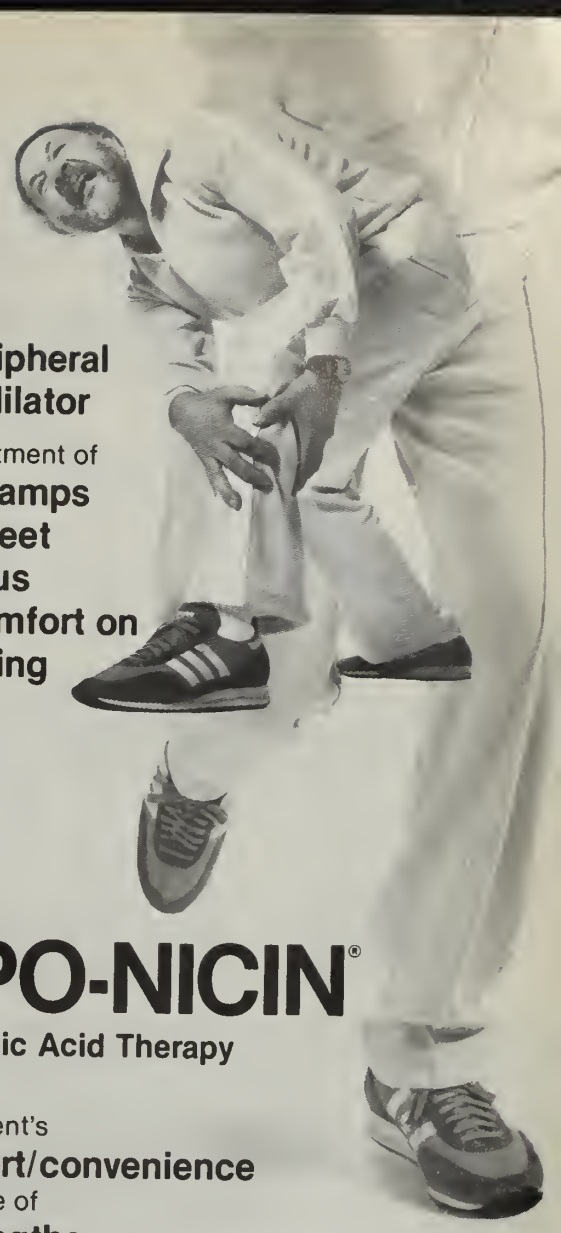
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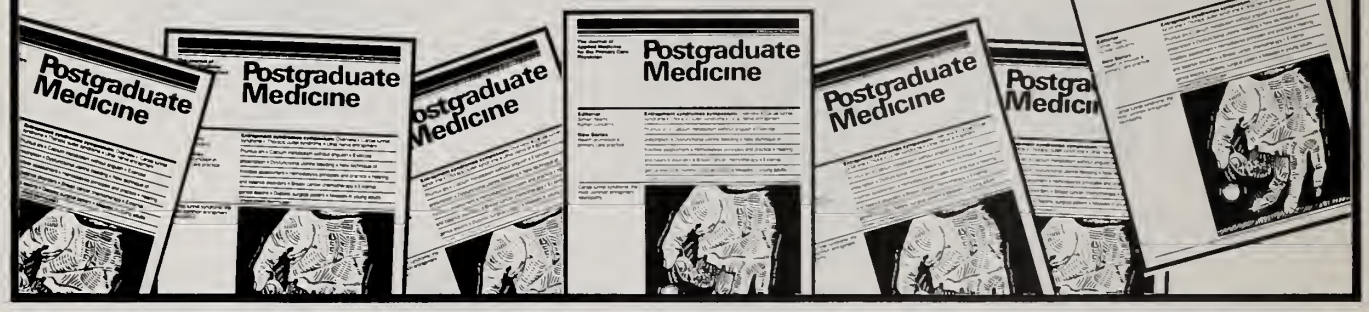
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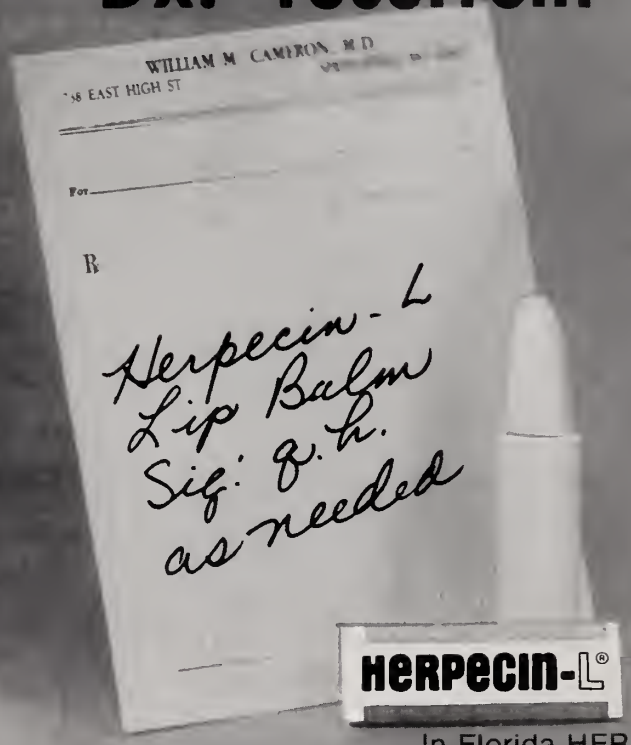
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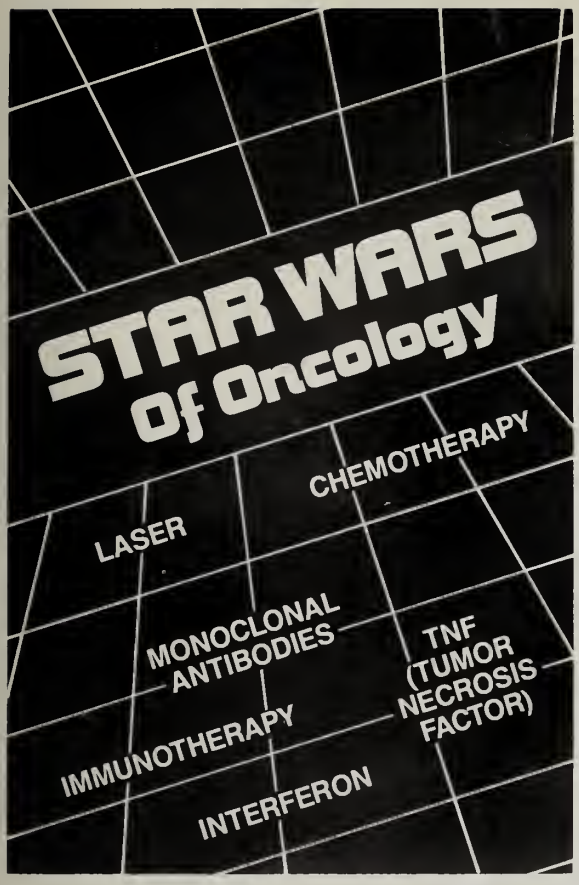
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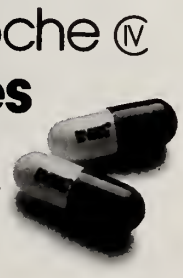
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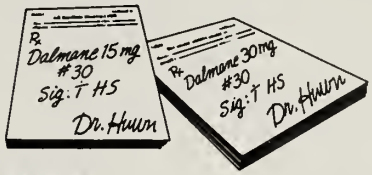
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